EDUCATIONAL PSYCHOLOGISTS' VIEWS ON THE RELEVANCE OF DYNAMIC ASSESSMENT FOR THEIR PRACTICE

Mia Smit

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Supervisor: Lynette Collair

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DECLARATION

I, the undersigned, hereby declare that this thesis is my own original work and that I have not previously submitted it in its entirety or in part at any university for a degree.

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Signature **Date**

ABSTRACT

This study stems from the concern about the over-reliance on and limitations of using isolated psychometric measures in psycho-educational assessments. Despite claims in literature that dynamic assessment is a valuable tool in linking assessment and intervention, many proponents of dynamic assessment (for instance Bosma & Resing, 2008; Woods & Farrell, 2006; Elliot, 2003; Tzuriel, 2001; Lidz & Elliot, 2000) have found that it has not been fully incorporated into educational psychologists' assessment practices. The present study aimed to explore educational psychologists' views on the relevance and challenges of practising dynamic assessment in the changing context of educational psychology practices in South Africa, particularly assessment practices. It reports on the value, relevance and potential of dynamic assessment for educational psychologists, but also sheds light on the factors and challenges that hamper its implementation in practice.

The researcher utilised a basic qualitative, interpretive research design. Twelve educational psychologists either in private practice or in state education services who had knowledge of dynamic assessment were selected by means of criterion-purposive sampling to participate in the study. Data were collected by means of an extensive literature review and semi-structured interviews, and analyzed using a synthesis of content and interpretive analysis.

The findings suggest that educational psychologists in South Africa found dynamic assessment to be relevant to their practices. Participants report that it yields valuable information about learning (on cognitive, affective and behavioural levels) and that it is especially useful for assessing learners from diverse backgrounds for whom no standardized tests exist. However, they experienced some obstacles in implementing dynamic assessment. These were related to insufficient training, too few experts to assist with supervision, expertise residing in too few retired or nearly retired persons, as well as the perceived labour-intensive and time-consuming nature of dynamic assessment. Therefore, recommendations for theory and further research indicate that more research (especially with regard to training presented at tertiary institutions) is needed to boost its momentum and ensure its further development. Recommendations for practice focus on raising educational psychologists' awareness of dynamic assessment, increasing the availability of courses, as well as interested professionals' access to training.

Keywords: Dynamic assessment; educational psychology; assessment in South Africa

OPSOMMING

Hierdie studie spruit voort uit kommer oor die oormatige vertroue op en beperkings van die gebruik van geïsoleerde psigometriese maatreëls in psigo-opvoedkundige assesserings. Ongeag aansprake in die literatuur dat dinamiese assessering 'n waardevolle instrument is om assessering en intervensie te verbind, het baie voorstanders van dinamiese assessering (byvoorbeeld Bosma & Resing, 2008; Woods & Farrell, 2006; Elliot, 2003; Tzuriel, 2001; Lidz & Elliot, 2000) bevind dat dit nog nie volledig in die assesseringspraktyke van opvoedkundige sielkundiges geïnkorporeer is nie. Die doel van die onderhawige studie was om opvoedkundige sielkundiges se sieninge oor die relevansie en uitdagings van die praktisering van dinamiese assessering in die veranderende konteks van opvoedkundige sielkundige praktyke in Suid-Afrika, in besonder assesseringspraktyke, te verken. Dit doen verslag oor die waarde, relevansie en potensiaal van dinamiese assessering vir opvoedkundige sielkundiges, maar werp ook lig op die faktore en uitdagings wat die implementering daarvan in die praktyk bemoeilik.

Die navorser het 'n basiese kwalitatiewe, interpretatiewe navorsingsontwerp gebruik. Twaalf opvoedkundige sielkundiges in privaatpraktyk of in staatsopvoedkundige dienste wat kennis van dinamiese assessering gehad het, is deur middel van kriteriagerigte steekproefneming geselekteer om aan die studie deel te neem. Data is deur middel van 'n uitgebreide literêre oorsig en semi-gestruktureerde onderhoude versamel en geanaliseer deur 'n sintese van inhoud- en interpretatiewe analise te gebruik.

Die bevindings dui daarop dat opvoedkundige sielkundiges in Suid-Afrika dinamiese assessering relevant vir hulle praktyke vind. Deelnemers rapporteer dat dit waardevolle inligting oor leer (op kognitiewe, affektiewe en gedragsvlakke) daarstel en dat dit veral nuttig is vir die assessering van leerders uit uiteenlopende agtergronde vir wie geen gestandaardiseerde toetse bestaan nie. Hulle het egter 'n paar hindernisse ervaar in die implementering van dinamiese assessering. Dit was verwant aan onvoldoende opleiding, te min kundiges om met toesig behulpsaam te wees, kundigheid wat in te min afgetrede en byna afgetrede persone setel, asook die waargenome arbeidsintensiewe en tydrowende aard van dinamiese assessering. Aanbevelings vir teorie en verdere navorsing dui daarop dat meer navorsing (veral ten opsigte van opleiding wat by tersiêre inrigtings aangebied word) benodig word om die momentum daarvan 'n hupstoot te gee en die verdere ontwikkeling daarvan te verseker. Aanbevelings vir die praktyk fokus op die bevordering van opvoedkundige sielkundiges se bewustheid van dinamiese assessering, die verhoging van die beskikbaarheid van kursusse asook toegang van geïnteresseerde professionele lui tot opleiding.

Sleutelwoorde: Dinamiese assessering, opvoedkundige sielkunde, assessering in Suid Afrika

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The world we have created
is a product of our thinking.
It cannot be changed
without changing our thinking.

Albert Einstein

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CHAPTER 1

GENERAL INTRODUCTION AND OVERVIEW OF THE STUDY

1.1 INTRODUCTION

This study is located in the changing context of educational psychology practices in South Africa, particularly assessment practices. The enquiry explored the views of educational psychologists in the Western Cape, who were either familiar with or had some form of training in dynamic assessment. The researcher tried to gain more insight into educational psychologists' views of dynamic assessment and its relevance for their practice within the South African context. This chapter provides the motivation for and rationale of the study. The problem statement and aims of the study will also be explained. An outline of the research design and research methodology will be provided. Ethical considerations applicable to this study will be discussed briefly, and relevant key concepts will be explained. The chapter will be concluded with a general overview of the study.

1.2 MOTIVATION FOR AND RELEVANCE OF THE STUDY

The last two decades have seen significant and frequently debated changes and shifts in the way we approach assessment. One of the trends that significantly affect educational psychological assessment is the shift away from isolated psychometric testing towards a more dynamic assessment culture (Lubbe, 2004). Furthermore, there has been a "proliferation of research dealing with dynamic assessment as an alternative approach to conventional psychometric measures" (Tzuriel, 2001, p. 1). According to Tzuriel (2001), this proliferation "paralleled dissatisfaction with static test approaches" (p. 1). Internationally and in South Africa, a number of criticisms and concerns have been raised about the appropriateness of using isolated psychometric testing (Department of Education, 2005; Lubbe, 2004).

Researchers (such as Knoetze & Vermoter, 2007; Lubbe, 2004; Donald, 1991) have argued that many educational psychologists still operate within a medical/deficit paradigm and hold the view that intelligence is "fixed". The problem with this is that it often leads to "incorrect diagnoses, misplacements and misunderstandings" (Lubbe, 2004, p. 319). As conventional psychometric testing "privileges knowledge and skills that are easily quantifiable, and emphasises the individual

and individual performance", it frequently negates "collaboration, the broader ecosystem and dynamic nature of human learning" (Lubbe, 2004, p. 319). Related to this, a major criticism against isolated psychometric testing is that persons from different cultural and socio-economic backgrounds cannot be validly compared. Samuda (1998) further explains the implication of this:

> No doubt, the vast majority of professionals in the business of education and psychology are imbued with the sincere desire to be helpful and effective in enhancing the education of students. However, too often those results are the very means by which the school system can become the unwitting agent in blaming the victim and providing a crutch that excuses the system from failure to create the appropriate environment for the atypical individual (p. 3).

Traditional psychological assessment procedures (both internationally and locally) were created in response to historical events (for example, the democratization of the education system and the inclusion of learners who were previously ineligible for education), pressure of social movements (such as accelerated urbanization, industrialization, mass production and attempts at universal education) and the particular needs (for example, classification) of societies. Therefore, to some extent, psychometric practices seem to mirror the social movements and circumstances of their time (Foxcroft & Davies, 2008; Haywood & Tzuriel, 1992; Ramey & MacPhee, 1981 in Haywood & Tzuriel, 1992). Similarly, dynamic/interactive approaches to psychological and psycho-educational assessment seem to have sprung from conceptual schemes (such as, whether dynamic assessment can be considered as a new paradigm that is necessary to respond to the new needs of society) that reflect societal changes (such as the human rights movement, the rapid globalization of the world's population, issues surrounding cross-cultural testing, inclusion, constructivism, the existence of demographic, sociological, political and economic conditions that create pressures to change conventional methods of assessment and the emergence of novel theoretical views about intelligence, its structure and origins) and thus societal needs and demands (Foxcroft & Davies, 2008; Haywood & Tzuriel, 1992; Ramey & MacPhee in Haywood & Tzuriel, 1992).

Parallel to the shift away from isolated psychometric testing, has been the political and educational trend towards inclusive education and equal learning opportunities for *all* learners, especially those who experience barriers to learning and development. With the international and national movements towards more inclusive practices, there has been "some downplaying of the need for assessment results to be used for the determination of eligibility to programs, with a corresponding increase in the need for assessments to inform instruction and to estimate children's responses to interventions" (Department of Education, 2005; Lidz, 2003, p. 112). However, despite developments in inclusive education, learning support and the change in discourse from a

medical/positivistic model to an asset-based and social-constructivist model, several researchers (for example Knoetze & Vermoter, 2007; Lubbe, 2004; Donald, 1991) have argued that few educational psychologists have moved away from a deficit focus framework. "Given the socio-economic and educational disadvantages that many learners experienced in the past, and are still experiencing today, there is a clear need for assessment strategies that focus on future potential rather than on current ability" (Murphy & Maree, 2006, p. 169).

Linked to this, Knoetze and Vermoter (2007) argued that conventional psychometric methods of assessing intelligence have been criticised because of their limited diagnostic-remedial nature and especially for their lack of potential for initiating effective and pragmatic intervention programmes. In the same way, "the means through which the results of such methods are communicated in order to make them useful and constructive can be debated" (Knoetze & Vermoter, 2007, p. 1). This seems to be particularly relevant to educational psychologists, as they are involved in not only conducting or administering assessments, but also in providing feedback to their clients. With the introduction of the new curriculum in South Africa, teachers have become more skilled assessors. When a child is referred to an educational psychologist for an assessment, it is often not only "to find out what the problem is" (in most instances teachers and parents know what the problem is, for example that the child struggles with reading), but also "what can we do about the problem"? This is where educational psychologists can make vital contributions. Bosma and Resing (2008) recently conducted research on "bridging the gap between assessment and classroom practice" and noted that:

> [Their] dynamic assessment procedure ... appeared to form a link between assessment and intervention, in offering specific recommendations for guiding teachers in their classroom practice. Hence, this finding might even be evidence of relevance for educational psychologists. Since teachers do recognise and value the additional information dynamic assessment offers them, educational psychologists might consider incorporating dynamic assessment into their psycho-educational practices as well (p. 192).

After an extensive and exhaustive database library search (ERIC-EbscoHost, PsycArticles, Academic Search Premier, SA Studies, SA ePublications, ProQuest Education Journals, Nexus database of the NRF, Wiley InterScience Journals) and a Boolean search on the International Association for Cognitive Education and Psychology's (IACEP) online journal (that is, The Journal of Cognitive Education and Psychology (JCEP)) using the search terms: *dynamic assessment, educational psychologists' views/perceptions and dynamic assessment, dynamic assessment and educational psychology practices, dynamic assessment and educational psychology, dynamic assessment and educational psychologists*, it would appear that there are no international or local

studies that have investigated educational psychologists' views on the relevance of dynamic assessment for their practices. This makes the realisation of this research imperative. Insight gained from this study may enhance the field of educational psychology in developing support for school communities in order to optimally assess learners and clients who experience barriers to learning and development. Understanding the meaning that educational psychologists ascribe to dynamic assessment may help with providing valuable information to support learners and clients. Awareness gained from this study can make a contribution to the relatively unexplored field of dynamic assessment in South Africa.

1.3 PROBLEM STATEMENT

This study stems from a concern about the limitations and potential dangers of using isolated (that is, using only (or purely)) psychometric assessment approaches, especially within the changing context of education and psychology in South Africa. Although many leading researchers within the field of cognitive education (for example Bosma & Resing, 2008; Woods & Farrell, 2006; Elliot, 2003; Tzuriel, 2001; Lidz & Elliot, 2000; Haney & Evans, 1999; Elliot, 1993) propagate the "use" and "value" of dynamic assessment, many have found that it has not been fully incorporated (if incorporated at all) into educational psychologists' assessment practices. The question which comes to mind then is: If dynamic assessment is such a "valuable" approach which, in addition to conventional psychometric measures, can provide a more accurate picture of a person's intellectual functioning, then why is it not more widely employed by educational psychologists? Elliot (1993 in Elliot, 2000, p. 715) has suggested four reasons why educational psychologists have been slow to take up dynamic approaches. First, dynamic assessment does not consist of a single set of procedures that can be acquired easily through a short training course - the range of models, techniques, methods and purposes is vast and thus potentially confusing to the practitioner. Second, dynamic assessment is often time consuming and may run counter to the demands of employers for rapid turnover assessments. Third, few opportunities for training exist, with only limited expertise and interest being evidenced in the UK or USA university departments. Finally, it was noted that dynamic assessment approaches, many of which are based upon qualitative rather than quantitative conceptions, do not fit easily into Western models of professional thinking and acting: "Our current system is proudly empiricist with a strong determination to view difference and change quantitatively, not qualitatively, i.e. through differences in amount rather than differences in kind" (Sutton, 1992 cited in Elliot, 2000, p. 716). Local researchers would seem to agree that this is also being evidenced in South Africa.

In a recent article which reported on the status of dynamic assessment in South Africa, Murphy and Maree (2006) noted that even though dynamic assessment is receiving increasing attention from educational psychologists, educators and research practitioners, it is a field which, although researched for a number of years internationally, "has yet to find its place in mainstream South African research" (Murphy & Maree, 2006, p. 169). This was confirmed by an extensive and thorough database library search (that is, SA Studies, SA ePublications, NEXUS database of the NRF, ERIC-EbscoHost), which revealed that there is currently limited research on dynamic assessment in South Africa.

1.4 AIMS OF THE RESEARCH

In the light of the problem statement, the present study aims to determine what educational psychologists' views are on the relevance of dynamic assessment for their practice in the South African context. This will be done through an interpretive, qualitative approach. In addition, the study aims to identify and explore features of dynamic assessment which had the greatest impact on educational psychologists' views.

1.5 RESEARCH QUESTIONS

The primary research question the present study poses is:

- What are educational psychologists' views on the relevance of dynamic assessment for their practice?

The following secondary research questions have been formulated:

- To what extent does dynamic assessment yield information that educational psychologists find useful?
- What are educational psychologists' views on the incorporation of dynamic assessment into their practice?

1.6 RESEARCH PARADIGM

Research must be done within a certain paradigm (Guba & Lincoln, 2005). A paradigm is "a loose collection of logically related assumptions, concepts or propositions that orient thinking and research" (Bogdan & Knopp-Bilken, 2007, p. 274). Durrheim (1999) asserts that paradigms act as perspectives that provide a rationale for the research. In addition, it commits the researcher to particular methods of data collection, analysis and interpretation. Paradigms are thus central to research design because they affect the nature of the research question, i.e. what is to be studied, and the manner in which the question is to be studied (Durrheim, 1999). Therefore, the researcher

had to ensure that the research question and methods used fitted logically within the paradigm chosen.

This study will be embedded in an interpretive/constructivist paradigm. The combination of the interpretive paradigm and constructivism claims that there are multiple realities (Mertens, 2005; Merriam, 1998) and therefore can be seen as an "inductive, hypothesis-generating mode of inquiry" (Merriam, 1998, p. 4). The interpretive/constructivist paradigm is explained further in the methodology chapter (chapter 4) of this presentation.

1.7 RESEARCH DESIGN AND METHODOLOGY

In this study, a basic, qualitative research design was employed. As this research is embedded in an interpretive/constructivist paradigm, the researcher had to ensure that the methodology deliver data and findings that reflect the research question and suit the research purpose (Henning, Van Rensburg & Smit, 2004). The next section provides a brief outline of the methodology used in this study.

1.7.1 Literature Review

"A thorough, sophisticated literature review is the foundation and inspiration for substantial, useful research" (Boote & Beile, 2005, p. 3). According to Mertens and McLaughlin (2004), the literature review serves as an essential resource for planning, conducting, interpreting and reporting on research. It also generates information to advance our collective understanding (Boote & Beile, 2005; Mertens & McLaughlin, 2004) of dynamic assessment. Furthermore, for research to be useful and meaningful, it must be cumulative, build on and learn from prior research on dynamic assessment. To ensure this, the researcher had to read extensively to understand what had been done before. The literature search was conducted in the manner outlined in the problem statement. A detailed review and discussion of literature that pertains to dynamic assessment can be found in the next two chapters.

1.7.2 Selection of participants

Participants were selected by means of purposive sampling. Purposive sampling is based on the assumption that "to discover, understand and gain the most insight, the sample has to be carefully selected as one that will yield the most knowledge" (Hamel, Dufour & Fortin, 1993 cited in Benjamin, 2000, p. 90). This study explored the views of twelve educational psychologists in the Western Cape. They were selected from a list generated on a referral basis of people who had received training in dynamic assessment. It was imperative that the participants had to be familiar with dynamic assessment. As qualitative research is essentially an exploration and description of the

nature of things, purposive sampling was the technique of choice despite its lack of generalisability (Benjamin, 2000).

1.7.3 Data collection

Merriam (1998) states that researchers conducting basic qualitative research typically use three methods for collecting data: observation, interviews and the reviewing of documents. However, owing to the focus of the present study, the researcher chose interviews as a means to collect the data. Individual, semi-structured interviews were conducted, as this form of interviewing allowed for casual conversations (Mertens, 2005; Mertens & McLaughlin, 2004), which in turn enabled the researcher to become more aware of the meanings ascribed to dynamic assessment by participants. By making use of in-depth interviewing techniques (as described by Patton, 2002; 1987), I was able to learn about the feelings, thoughts and intentions of the participants in the study. Data from the interviews were retrieved by means of note-taking, digital voice recordings and interview transcripts. The manner in which data was collected in this study is discussed in more depth in chapter 4.

1.7.4 Data analysis

This study followed an inductive approach to data analysis using a synthesis of interpretive and content analysis (as described by Smith & Osborn, 2008; Terre Blanche, Durrheim & Kelly, 2006; Rubin & Rubin, 2005; Patton, 2002). In keeping with the principles of interpretive research, the purpose of the present study was to provide a "thick description" of the characteristics, processes, transactions and contexts that constitute educational psychologists' views on the relevance of dynamic assessment for their practice. The researcher also had to ensure that the "thick description" of this research was couched in a language relevant to the participants in and the context of study. Chapter 4 provides an account of the researcher's role in constructing this description.

Transcripts were generated from the interviews conducted with participants. The analysis started when the entire text was read to get a global impression of the content. The text was then re-read to identify units of meaning. Content and interpretive analysis was used to reduce and make sense of the data and to identify core consistencies and meanings in the data (Patton, 2002). Furthermore, it involved "identifying coherent and important examples, themes and patterns in the data" (Patton, 1987, p. 149). The researcher first pulled all the data related to, for example, "training in dynamic assessment" together and then subdivided it into coherent categories, patterns and themes. As the researcher worked through the data, the units of meaning were labelled with codes. Consistent with an inductive approach to data analysis, codes and categories to group data were determined as they emerged from the data itself (Maykut & Morehouse, 1994). Related codes were then categorised,

after which categories were also labelled. Categories revealed themes that had been constructed from the data. Each theme was then used as a basis for an argument, as themes are the evidence with which to substantiate the arguments about the emerging knowledge claims of the researcher (Rubin & Rubin, 2005; Henning, Van Rensburg & Smit, 2004).

1.7.5 Trustworthiness and verification of the data

Trustworthiness is the term used by Lincoln and Guba (1985) to refer to the credibility of a researcher's findings. To enhance the trustworthiness of the research findings of this study, the following provisions were made: A detailed description of the research process (that is, the purpose of the study, how the participants became part of the sample, the specific people studied, data collection and analysis procedures used) and the findings or outcomes (Maykut & Morehouse, 1994) were given to provide the reader with a basis for judging the credibility of the study. Lincoln and Guba (1985) describe several aspects of the research processes that contribute to trustworthiness such as building an audit trail and using member checks. These "techniques" were also used in this study and are discussed further in chapter 4.

1.8 ETHICAL CONSIDERATIONS

Research is considered as ethical if it conforms to the standards of conduct of scientific enquiry (Babbie & Mouton, 2001). The researcher remains accountable for the ethical quality of the study and must ensure that the enquiry is conducted in an ethically proper manner. The "Ethical Code of Professional Conduct" of the Professional Board for Psychology, Health Professions Council of South Africa (in Babbie & Mouton, 2001), was the guiding principle for the research done in this study. Once ethical clearance had been obtained (reference number: 212/2009), the researcher took the necessary steps to ensure that the research process remained fair, accurate and relevant at all times. It was imperative that the researcher acknowledged the rights of the participants in the study, for instance their right a) to be informed, b) to engage in decision-making directly affecting them, c) to say "no" to an interview request, d) of reply and e) to have a voice in the affairs of any research which affects them (Daniels, 2008). Chapter 4 includes a detailed discussion of ethical considerations relevant to this study.

1.9 CLARIFICATION OF RELEVANT TERMS

Throughout the proceeding chapters, various terms will be used which occasionally overlap and are often confusing. Therefore, some terms relevant to this study will be highlighted and clarified in this section so that the reader is able to develop an understanding of them and how they will be used in the chapters that follow.

1.9.1 Educational Psychologist

Educational psychology is a field of applied psychology devoted to education. In South Africa, educational psychologists are trained in education and psychology and are employed in school psychological services and child guidance clinics or as independent or private consultants. The work of educational psychologists involves the diagnosis and treatment of developmental, educational, emotional and behavioural problems in people of all ages (Oxford Dictionary of Psychology, 2003). The Professional Board for Psychology defines the scope of practice of educational psychologists as follows: "Educational psychologists are involved in assessment, diagnosis and intervention in order to optimise functioning in the broad context of learning and development" (Health Professions Council of South Africa, 2008, p. 10).

1.9.2 Dynamic assessment

Lidz and Elliot (2000) argue that it is no longer possible to support a narrow definition of dynamic assessment. Nevertheless, it should be possible to delineate characteristics that provide some guidelines for what makes an assessment "dynamic". The most defining characteristic of a dynamic assessment is the interactive nature of the relationship between the assessor and the person being assessed. The next defining feature is in the embedding of intervention (or mediation) within the procedure, generating the hope and expectation that one can link assessment with intervention. Most approaches follow a test-teach/mediate-test, or at least a teach/mediate-test sequence.

The most unique information generated by dynamic assessment describes the modifiability or responsiveness of the learner to intervention. To summarise, the essential characteristics of dynamic assessment approaches are that they are interactive, open-ended and generate information about the responsiveness of the learner to intervention (Lidz & Elliot, 2000). "The aim of dynamic assessment is to identify cognitive and affective barriers to learning and to specify the conditions that will improve intellectual functioning" (Benjamin, 2000, p. 8). This concept of dynamic/interactive assessment will be discussed in more depth in chapter 3.

1.9.3 Static (Standardised) assessment, conventional (traditional), normative, psychometric, intelligence tests

These concepts are used interchangeably in the chapters that follow. The term *static assessment* is used as a general term encompassing the following concepts: static (standardised) assessment, conventional (traditional), normative, psychometric tests and/or intelligence tests. A standardised testing approach refers to a prescribed set of procedures used to administer a test, to ensure its scientific value; that is, its reliability and/or validity. The interpretation of a standardised test score is dependent on statistically established norms with which the individual's performance is

compared. These norms are derived from specific and "representative" sectors of the population. Therefore, the use of the appropriate test norms within a standardised testing procedure is essential before a test score can be interpreted. Static assessment approaches reflect the standing of the individual compared with other individuals of a similar age. To ensure objectivity of the procedure, all individuals to whom the test is administered receive the same set of procedures and instructions. No assistance or teaching is allowed (besides when indicated in the test manual) during the administration of the test (Benjamin, 2000).

1.10 OVERVIEW OF THE STUDY

Chapter 1: *General introduction and overview of the study* (p. 1)

This chapter presents the motivation for and relevance of the study, and describes the context in which this research is located. A brief outline of the problem statement, research aim, research paradigm, research design, and research methodology of the study is provided. Ethical considerations applicable to this study are discussed briefly. It further explains the concepts central to this research to prepare and orientate the reader to the study.

Chapter 2: *A theoretical overview of the history and development of dynamic assessment* (p. 12)

This chapter outlines the socio-historic context of the dynamic assessment movement internationally and in South Africa. It examines dissatisfactions with traditional testing approaches and provides a review of the literature that relates to the various applications, procedures and approaches of dynamic assessment within the field of educational psychology.

Chapter 3: *A review of the relevance and potential of dynamic assessment for educational psychologists* (p. 43)

This chapter introduces the reader to the basic concepts and premises of dynamic assessment. The discussion then moves to a critique of the dynamic assessment approach and considers assessment paradigms in educational psychology. The chapter is concluded with a review of the literature that pertains to relevance and potential of dynamic assessment for educational psychologists.

Chapter 4: *Research design and methodology* (p. 66)

The methodology chapter of this research study details the research design and method, and explains the approaches used to analyse and verify the data. It also elucidates ethical issues that were considered during the study in detail. The use of a qualitative research design, which is appropriate for an interpretive/descriptive study, is also motivated.

Chapter 5: *Presentation and discussion of the research findings* (p. 86)

The data collected in this study are presented, and emergent themes are identified. The main findings identified are then presented and discussed according to various thematic categories. As this research is embedded in a constructivist/interpretive paradigm, this chapter includes an in-depth examination of the participants' views and their particular experiences as they relate to the focus of the study. This chapter addresses the main research questions raised by the study.

Chapter 6: *Recommendations and final reflections* (p. 141)

The researcher finally presents recommendations that can be derived from this study. The limitations and strengths of the study are discussed, and the findings of the study are considered in terms of these limitations. The chapter is concluded with the researcher's final reflections.

References and bibliography (p. 146)

Appendices (p. 167)

CHAPTER 2

A THEORETICAL OVERVIEW OF THE HISTORY AND DEVELOPMENT OF DYNAMIC ASSESSMENT

2.1 INTRODUCTION

This chapter will outline the socio-historic context of the dynamic assessment movement internationally and in South Africa. It will discuss dissatisfactions with isolated psychometric testing approaches and introduce the reader to key theorists who played a significant role in the history and development of dynamic assessment. The final part of this chapter will review literature that pertains to the various applications and primary procedure models of dynamic assessment. Different approaches to dynamic assessment will also be discussed briefly. The purpose of reviewing literature relevant to this study is to advance the argument conveyed in the previous chapter. It further hopes to generate information that will advance our collective understanding of dynamic assessment, particularly in the South African context.

2.2 HISTORY AND DEVELOPMENT

> Acquiring a perspective of the past is not sufficient unless the perspective gained is used as a means to contextualize current issues in psychological testing and to speculate on its future. In this way, the past becomes meaningful to the present (Foxcroft & Davies, 2008, p. 152).

In order to fully understand the history of dynamic assessment in South Africa, it needs to be understood against a broader context, namely the history of dynamic assessment in an international context. For this reason, a brief sketch of the history of dynamic assessment in an international context will be provided before turning to the history of dynamic assessment in South Africa.

2.2.1 International forces and changes

Since the beginning of the twentieth century, psychologists and others have suggested the idea of assessment of processes rather than the products of learning. Even though Alfred Binet, who produced the first intelligence test for children, defined intelligence in terms of "the ability to learn"

and stated that we should seek ways to assess the ways in which children learn (Binet & Simon, 1905 in Haywood, 2008, p. 427), he continued developing static tests that focus on past learning rather than the child's capacity to learn (Elliot, 2003, p. 15; Tzuriel, 2001, p. 5; Lidz, 1987, p. 3). In view of this, Gould (1981 cited in Foxcroft & Roodt, 2005) notes that Binet wanted the tests scores of his measure to be used as a practical device and not as a basis for a theory of intellect, in order to identify children who needed special help and not as a device for ranking children according to their ability. He further notes that Binet hoped to emphasise that intellectual ability could be improved and modified through special training. However, "this was not the way in which Binet's measure was interpreted and used in practice" (Foxcroft & Roodt, 2005, p. 120). With the emergence of dynamic assessment, there has been a renewed focus on Binet's applied approach to cognitive assessment (Foxcroft & Roodt, 2005).

Tzuriel (2001) notes that dynamic assessment "emerged from both theoretical conceptions about human cognitive plasticity and practical needs to find novel diagnostic measures for individuals who for various reasons do not reveal their capacities in conventional static tests" (p. 5). Motivations for the development of dynamic assessment approaches tend to reflect dissatisfaction with traditional models of assessment (Tzuriel, 2001; Lidz & Elliot, 2000; Lidz, 1987). In a recent article, Haywood (2008) sheds some light on the major concerns with regard to standardised, normative testing as well as the assessment dependent on it: First, he argues that static tests are not uniformly predictive across ability ranges, ages, socio-economic and cultural conditions. They are based on small samples of behaviour and performance that may not be representative of applications of human abilities and that may not reflect test subjects' prior opportunities to learn. In addition, static tests represent attempts to assess individual differences in intelligence only. Second, they rely on the assumption that typical performance is the best indication of ability (in other words, the number of correct or incorrect answers is indicative of what the person is intellectually capable of – does (i.e. correct answer) equals can; does not (i.e. incorrect answer) equals cannot). The implication of this is that interpreters of static tests often confuse ignorance with lack of ability. Third, the interpretation of static tests relies on comparisons with other persons" performance, in other words, the normative aspect. The "problem" with this is that normative interpretation assumes that all persons of a given age have had the same or similar opportunities to learn, as static tests are based largely on achievement (that is, on prior learning). Finally, they yield reliable predictions of future learning—and that is a problem, because if nothing is done to overcome the obstacles to learning and performance, these predictions are likely to become true. Finally, static tests tend to be used heavily for classification, but do not suggest what must be done to avoid or escape the resulting classes. Haywood (2008) further explains the implication of this:

> Low scores on intelligence tests become excuses for not trying harder to help students learn in school. This is because intelligence, as represented by IQ, is assumed to be a constant trait, not subject to significant change, so why should teachers try hard to encourage learning when they have indications that the ability to learn is not adequate (p. 427).

The development of dynamic assessment approaches has constituted a novel response to the abovementioned concerns about standardised, normative testing and the philosophical-theoretical stance underlying the practice of such tests (Haywood & Tzuriel, 1992). Tzuriel (2001) argues that standardised tests do not provide answers for burning issues, such as *"How much are human beings modifiable beyond their manifest level of performance? How is development and assessment of cognitive functioning moulded by social factors? What are the intervention procedures that are most efficient in bringing about cognitive changes?"* (p. 5). He further mentions that dynamic assessment has been motivated by the inadequacy of static tests in providing precise information about individual differences of learning ability and specific learning processes, their operational translation into practice and prescriptive teaching, as well as the validity of assigning individuals to special education settings. In turn, these issues are related to questions such as: *"What are the specific cognitive processes that act as barriers for the actualization of learning potential? How is dynamic assessment more efficient in directing the future treatment of individuals with learning difficulties?"* (Tzuriel, 2001, p. 5).

Even though the article by Haywood (2008) and book by Tzuriel (2001) were published recently, the need or call for alternative assessment approaches is not new. As mentioned before, the development of ideas in the field of dynamic assessment can be traced clearly throughout the twentieth century. Notions of "learning to learn", the ability to learn, progress of learning and propensities to improve when given sufficient training, were already being pondered in the 1920s and 1930s by researchers such as Buckingham, Dearborn and Penrose (Murphy & Maree, 2006; Lidz, 1987). According to Lidz (1987), the work of André Rey seems to have played an influential role in terms of our current thinking about the roots and origin of dynamic assessment. Rey (1934, cited in Haywood, 2008) published a paper in 1934 in which he advocated intervention with a test as a means of discovering a child's learning potential (Haywood, 2008, p. 429). Rey was also Feuerstein's mentor, and Feuerstein continued to incorporate some of Rey's measures as part of the Learning Potential Assessment Device (Feuerstein, 1979 in Lidz, 1987).

During the 1940s and earlier, there were signs of concern with some of the issues related to current theoretical developments culminating in dynamic assessment (Lidz, 1987). During this time, the notion of equating intelligence with the ability to learn came to the fore. "Evidence suggesting that intelligence and learning ability did not co-vary as measures of intelligence began to arose and

sparked more controversy" (Murphy & Maree, 2006, p. 171). Researchers of the 1940s include Woodrow, Simrall and McPherson. The 1950s was a period noted for its emphasis on coaching - specific attempts to assess the effects of direct teaching on assessment results (Murphy & Maree, 2006; Lidz, 1987). Some researchers were concerned with trying to find ways to improve intelligence and assessment, while others attempted to equalize and optimise opportunities for learners in terms of test-taking (Murphy & Maree, 2006; Lidz, 1987). According to Lidz (1987), there were also researchers who have responded to the commercialization of coaching and were trying to arrive at an opinion and official recommendation regarding the effects of these efforts. Researchers of the 1950s include Vernon, Wiseman and Wringley, Yates, James, Dempster, Heim and Watts, and Ortar (Lidz, 1987). There were also two contributions to the history of dynamic assessment that were independent of the coaching studies, namely those of Haeussermann and Volle. Volle proposed the notion of "testing the limits" on the Verbal Scale of the Wechsler Scale for Children (WISC) (Lidz, 1987). Elsa Haeussermann (1958 in Lidz, 1987), who has been regarded by some (Lidz & Elliot, 2000) as "the mother of dynamic assessment approaches", developed a complex procedure that incorporated a series of probes to follow and explore incidences of item failure by children (she worked with children with cerebral palsy). In 1972, her procedure was adapted by Jedrysek, Klapper, Pope and Wortis, and according to Lidz and Elliot (2000), may have been the first commercially available dynamic-like procedure distributed by a major publisher. During this time, the theoretical groundwork for dynamic assessment was also laid by Piaget's suggestions of the changeability of intelligence and the development of a process orientation in assessing intelligence (Lidz, 1987).

The 1960s was characterized by Lidz (1987) as a time of isolated efforts to devise direct measures of learning that attempted to assess educability. The 1960s saw a surge in performance tests, administered within a test-teach-test model, espoused so often as the hallmark of dynamic assessment techniques (Murphy & Maree, 2006; Lidz, 1987). Researchers of the 1960s include Schuchman, Mckay and Vernon, Zigler and Butterfield, Semler and Iscoe (Lidz, 1987). However, it was Jensen and Budoff in particular who made important contributions to research in the field of dynamic assessment during this time. "A.R. Jensen was among the first cognitive researchers to address the differences in results on traditional measures of members of ethnic minorities with proposals for dynamic alternatives" (Lidz, 1987, p. 13). Budoff, who worked with persons who had intellectual disabilities, found that their test performance on a wide variety of measures could be improved much by coaching on the elements of their performance (Haywood, 2008). Budoff's approach is discussed in more depth later on in this chapter (see 2.5.2.1). Only from the 1970s

onward, dynamic assessment began to spark the interest and imagination of more researchers and practitioners in the fields of education and psychology (Lidz, 1987).

In the light of the above, Murphy and Maree (2006) note that the 1970s was "perhaps the most significant decade in terms of expertise in the field of dynamic assessment" (p. 171). During this period, a number of prominent researchers in the field came to the fore. The elaboration and spread of the idea of dynamic assessment occurred with the introduction of Feuerstein (by Carl Haywood) and Vygotsky's zone of proximal development (by Campione and Brown) to mainstream academia and modern psychology in the United States (Tzuriel, 2001; Lidz, 1987). Both Vygotsky and Feuerstein (outside the dominant psychological mainstream) responded to social needs and cultural-historical changes for assessing human cognitive potential rather than assess only contemporary performance based on past learning (Haywood & Tzuriel, 1992). Geographically speaking, dynamic assessment found its origins in Russia and Europe, although different approaches towards psychometric testing had started to occur concurrently in the United States (Murphy & Maree, 2007) and Israel. The work of Feuerstein, Budoff, Carlson and Lidz started gaining prominence in the field of dynamic assessment (Grigorenko & Sternberg, 1998) due to growing concern about issues associated with static testing in Israel and the United States.

There were also other influential researchers during the 1970s. Among these were Kratochwill and Severson, and Ozer and his colleagues, who were involved in the development of assessment approaches with dynamic qualities (Lidz, 1987). A number of research studies were also conducted throughout the 1970s that supported or related to basic concepts of dynamic assessment (Lidz, 1987). Examples of such studies include the work of Rohwer, who responded to the research by Jensen in the 1960s. The research of Haywood and Switsky also made a major contribution to the development of dynamic assessment, especially their research with "low functioning" children in 1974 (Lidz, 1987, p. 20). A significant body of research spanning from the late 1970s into the 1980s that was directly related to dynamic assessment was carried out by Jerry Carlson and Karl Wiedl. These authors began calling their approach testing-the-limits, but later used the term dynamic assessment (Lidz, 1987). Carlson and Wiedl also dealt with the very difficult and important issue regarding the "validity of" and "validity in" dynamic assessment. Carlson, Wiedl and their associates were able to present evidence supporting the validity of dynamic assessment and its usefulness as a non-discriminatory assessment approach. They also provided some insight into the nature of the changes taking place in the learner (for instance improvements in reasoning ability and self-regulation) and the effects of dynamic assessment on visual scanning, test anxiety and negative orientation (Lidz, 1987). Their approach is discussed in more depth later on in this chapter.

The publication of *The Dynamic Assessment of Retarded Performers* in 1979, in which Feuerstein and his colleagues introduced their assessment procedure, the Learning Potential Assessment Device was one of the highlights of the 1970s. Towards the end of the 1970s, Kratochwill (1977) applauded efforts to develop learning potential procedures and emphasised the need for further research and development (Lidz, 1987).

Owing to the gradual development of interest in the concept of intelligence by many researchers since the beginning of the twentieth century, the 1980s saw the emergence of "a new concept of intelligence" (Anastasi, 1981b in Lidz, 1987). Most of the debates surrounding the concept of intelligence were based on issues regarding the nature of intelligence - that is, whether intelligence is crystallized and largely genetically determined, or fluid and modifiable when the appropriate intervention is provided. Linked to this, psychometric testing in 1980s was characterized by an emphasis on researching the cultural appropriateness of tests and adapting and/or developing new measures in an effort to eliminate bias and increase fairness (Foxcroft & Roodt, 2005). In an attempt to address the issues raised by critics regarding the shortcomings of static tests, the 1980s saw the spread of dynamic assessment research into populations with hearing and reading disabilities, which meant that research and testing were no longer confined to persons living with intellectual disabilities (Lidz, 1987). The most significant work of the 1980s was the continuing development of the work of Feuerstein, Brown, Campione and their associates, as well as the research of a number of other investigators such as Carlson and Wiedl, Meltzer and associates and Ionescu (Lidz, 1987). This decade also saw the controversy concerning the predictive validity, partially resolved by certain researchers in the field (for example Carlson & Wiedl), but which still remains a challenge today. **Appendix A** includes the names of some the researchers who played a role in the history and development of dynamic assessment throughout the twentieth century.

2.2.2 Local forces and changes

The trend of dissatisfaction with conventional psychometric testing over the past three decades regarding the underlying assumptions, practical outcomes, modes of representation and the resultant interpretations of conventional psychometric tests (Kriegler & Skuy, 1996) has been expressed in literature worldwide. The issues surrounding assessment internationally also seem to mirror the situation in South Africa.

As a result of the human rights movement and philosophical influences such as social constructivism and inclusion, assessment (internationally) has been subjected to considerable "soul searching" to re-examine its goals, the efficacy of its techniques reassessed in terms of learners with special needs, and to establish guidelines for meeting them (Kriegler & Skuy, 1996, p. 118). These

forces have also exerted pressure on many professionals working in the fields of education and psychology in South Africa to depart from traditional paradigms (Kriegler & Skuy, 1996). Foxcroft and Roodt (2005, p. 18) mention three important trends that had an impact on assessment (in the fields of education and psychology) in South Africa:

- The impact of the apartheid political dispensation on the development and fair use of measures;
- The need to empirically investigate test bias; and
- The growing scepticism regarding the value of psychological measures, especially for black South Africans.

These trends exemplify why "testing in South cannot be divorced from the country's political, economic and social history" (Claasen, 1997 cited in Foxcroft & Davies, 2008, p. 162). This has been evident in the way that the development of psychological assessment in South Africa "reflected the racially segregated society in which it evolved" (Foxcroft, Roodt & Abrahams, 2005, p. 15). Kriegler and Skuy (1996) state that, for five decades, South African education was dominated by an apartheid ideology, and they explain the implications of consequent implicit assumptions such as: 1) "the locus of a learning problem is in the individual child"; 2) "learning problems are paramedical phenomena"; 3) "it is better to be dyslexic than dumb or neglected"; 4) "learning is a bottom-up process"; 5) "development is a stepwise, biological process"; and 6) "we can't do much about it anyway" (p. 110). These assumptions have excluded and denied many individuals from disadvantaged socio-economic backgrounds, different cultural orientations and those with disabilities and other barriers to learning and development, opportunities to obtain quality education. These assumptions also seem to have catalyzed the development of dynamic assessment in South Africa, especially towards the late 1980s.

Foxcroft and Davies (2008) note that the dynamic assessment movement began because traditional, static approaches to cognitive testing placed too strong emphasis on prior knowledge and skills, which was problematic for many South Africans who came from disadvantaged educational backgrounds. Consequently, the results of such traditional, static, cognitive tests were less useful when it came to job or educational placement, as they did not sufficiently reflect what the person was capable of doing. This led to the need for assessment measures that could assess future developmental capacity (that is, learning potential).

The end of apartheid in 1994 and the introduction of inclusive education had an impact on assessment practices in South Africa and consequently dynamic assessment. With the "growing resistance to assessment measures and the ruling African National Congress' (ANC) expressed purpose to focus on issues of equity to redress past imbalances, the use of tests in education in

particular has been placed under the spotlight" (Foxcroft & Roodt, 2005, p. 18). In a research report on assessment practice in South Africa (NCSNET/NCESS, 1997), the following concerns regarding the use of psychometric tests were highlighted (cited in Benjamin, 2000, p. 57):

- *The development of many of the psychometric tests in South Africa has been aimed mainly at white children, and have been standardised and constructed among white children*
- *The trend in South Africa has been to use "foreign" measures and to interpret local children's performances with caution, rather than trying to adapt or develop tests for South African children. This approach will significantly increase the risk of underestimating the capacities of non-western South African children.*
- *Tests commonly used for categorization in South Africa fail to approach even the minimum standards of adequacy.*

According to Foxcroft and Roodt (2005), school readiness testing as well as the routine administration of group tests in schools, was banned in many provinces, as such testing was seen as being exclusionary and perpetuating the discriminatory policies of the past. Furthermore, the usefulness of test results in educational settings has been strongly queried (Foxcroft & Roodt, 2005). An example of this can be found in *The Draft Guidelines for the Implementation of Inclusive Education* (October, 2002, p. 17) which states that psychologists should not use psychometric tests because they offer little in terms of programme planning (Foxcroft & Roodt, 2005). In addition, *The Draft National Strategy on Screening, Identification, Assessment and Support* (Department of Education, May 2005, p. 17) includes the following information about the use of psychometric testing by a psychologist:

- *The need for group and individual diagnostic assessment is minimised, especially in view of the negative and discriminatory effects and limited benefits of norm-referenced psychometric assessment as conducted in the previous system. Schools are no longer allowed to organise for or request such an assessment to be undergone by a learner(s) who need(s) additional support.*
- *Decision making around the support programme centrally involves the learner, parents and the teacher – the need to involve any professional from outside to diagnose the intrinsic barriers of the learner is reduced, especially if such a person does not have insight into the teaching and learning environment of the child.*
- *The role of psychologists working within the system will be revised to be in line with Education White Paper 6 – with the emphasis on mentoring, consultation, monitoring and programme development.*

Keeping the aforementioned issues in mind, Taylor (1994) argued that if we are to address the inequalities of the past in South Africa, employers and educationalists will have to place more emphasis on potential rather than skill or specific ability. Since conventional intelligence/aptitude tests have come increasingly under fire for being biased to certain populations (Taylor, 1994), several researchers have propagated the use of dynamic assessment in an attempt to address the inequalities of the past. Gupta and Coxhead (1988) argue that dynamic assessment measures seem less susceptible to the effects of cultural bias. Verster (1991 cited in Benjamin, 2000) notes that assessment should not indicate that some children are born inferior, but rather that culture exerts a powerful influence. Kriegler and Skuy (1996) propose that "assessment should be aimed at helping pupils to learn and at helping those who teach them, to do it better" (p. 114). In addition, they recommend dynamic assessment, as it takes an optimistic view of human functioning, emphasising modifiability and change with reference to individuals and society (Kriegler & Skuy, 1996). This is significant, especially when taking the history of South Africa into account.

To summarise, the development of dynamic assessment in South Africa has been influenced by international and local forces and changes, as well as the needs of society which arose during these times. This may explain why research in the field of dynamic assessment only started to take off in South Africa during the 1980s, although not quite to the same extent as Europe, Israel and the United States (Foxcroft & Davies, 2008; Murphy & Maree, 2006). Early researchers in this country include Boeyens (1989), Gaydon (1988), Henley (1989), Hoffenberg (1988), Murray (1988), Shochet (1986) and Skuy (Skuy & Skuy, 2005; Tzuriel, 2001). Researchers during the 1990s included Lipson (1992), Lomofsky (1994), Green (1996), Andrews (1996), Zolezzi (1995), De Villiers (1996; 1999) Gewer (1998) and Coosner (1999; 2001). Louis Benjamin (2000, 2005) is one of the more recent researchers and practitioners of dynamic assessment in South Africa. Reagan Murphy and David Maree (2006a; 2006b) are also current researchers in the field of dynamic assessment in South Africa.

The initial introduction of dynamic assessment in South Africa resulted in standard, individually-administered cognitive measures being used in a dynamic way, especially with children (Foxcroft & Davies, 2008). However, local researchers have also developed specific measures for assessing learning potential, which could be applied in group settings. Taylor (1994) developed a variety of measures, such as the APIL-B, TRAM1 and TRAM2 for adults based on his approach of learning potential, while Marié de Beer (2000) developed the Learning Potential Computerised Adaptive Test (LPCAT) for persons older than 11 years of age (De Beer, 2000). These tests not only provide information about the person's current level of intellectual functioning (or performance), but also

about the potential levels of achievement that the person can reach if relevant learning opportunities are provided.

2.3 KEY THEORISTS IN THE HISTORY AND DEVELOPMENT OF DYNAMIC ASSESSMENT

The previous section provided an introduction and summary of international and local researchers in the field of dynamic assessment. This section, however, is devoted to the key theorists whose research forms the basis of dynamic assessment. The first part is dedicated to Vygotsky (1978) and Feuerstein (Feuerstein et al., 1979), whose contributions are considered as the cornerstones of dynamic assessment, as well as Piaget, whose theories on cognitive development and learning provided an impetus for much of the research that was conducted in the field later on. The discussion will then turn to more contemporary theorists in the field of dynamic assessment, namely Carl Haywood, Robert Sternberg and Carol Lidz, with a specific focus on their conceptualisation of intelligence, cognition and motivation.

2.3.1 Piaget

His work as a developmental psychologist "had a tremendous impact on primary and preschool education" (Sutherland, 1992, p. 7). Piaget argued that knowledge is not simply "taken in" by people, but that it is actively constructed and developed to progressively higher levels in each individual. "Through engaging in experiences, activities and discussions which challenge them to make meaning of their social and physical environment, children are actively engaged in building progressively more complex understandings of their world" (Donald, Lazarus & Lolwana, 2002, p. 100). The Piagetian view contends that a child becomes able to solve increasingly complex problems as a result of biological maturation and therefore asserts that mental development facilitates learning (Boeyens, 1989).

Piaget contends that learning occurs in an unassisted interaction between the child's mental schemas and the objects of the external world. The child is considered able to discover concepts on his/ her own. The only requirement is that the environment should be "sufficiently rich in stimuli so that the child has enough objects to practice his/her schemas" (Benjamin, 2000, p. 41). According to Piaget's S-O-R model, the organism (O) processes the impinging stimuli (S) and consequently produces a specific response (R) (Tzuriel, 2001, p. 30). Even though Vygotsky and Feuerstein agree with Piaget that the "spontaneous interaction of the child with the physical world is a precursor to development of schemata and symbolic operational thought", they argue that "activity is mediated by society" (Tzuriel, 2001, p. 31). Piaget has been recognised for his theories describing the universal cognitive developmental stages. However, "accumulating empirical evidence suggests that

Piaget's developmental stages are not as stable as he described them" (Case, 1993 cited in Tzuriel, 2001), and that there is "much room for significantly higher performance above Piaget's prescribed stages" (Tzuriel, 2001, p. 31). As Piaget was mainly concerned with describing the universal cognitive developmental stages, he did not pay much attention to the role of caregivers, culture or social interaction in developing the individual as Vygotsky and Feuerstein did.

2.3.2 Vygotsky

Vygotsky, the Russian psychologist, has been called the "theoretical forefather" of dynamic assessment (Elliot, 2003, p. 16), despite the fact that he never elaborated his ideas into specific assessment procedures (Lidz, 1995). The work of Vygotsky has made a major contribution to the understanding of the social origins of cognitive processes and the conceptual foundation of dynamic assessment (Tzuriel, 2001).

Vygotsky was very critical of the theories and practices of the pedologists (Tzuriel, 2001; Guthke & Wingenfeld, 1992). "Pedologists practiced a sort of school psychology, but without thorough education in psychology" (Tzuriel, 2001, p. 11). This meant that many adopted uncritically the standardised intelligence tests as well as the genetic interpretation of test results used in other countries. These practices lead to many children being wrongly labelled as "unintelligent" and incapable of learning (Tzuriel, 2001).Vygotsky (1978) pointed out the limitations of assessing only what the child is able to perform independently as well as limiting conclusions about performance to observations on "decontextualised" tasks (Harré, 2006; Lidz, 1995). He also warned against the estimation of a child's readiness for learning based on the child's unaided performance level. According to Vygotsky (1978), a child's functioning could not be fully understood without knowledge of both the actual and potential developmental levels of performance (Lidz, 2003). Therefore, he criticizes educational policy for children with intellectual disabilities (which is based on the assumption that they are incapable of abstract thinking), arguing that these policies reinforce and suppress any rudiments for abstract thought that these children still have (Tzuriel, 2001). Vygotsky's view of child development (developmental problems) required a shift from a symptomatic assessment to a clinical diagnosis to determine the cause of the problem (Benjamin, 2008). The main differences between the two perspectives on assessment are explained by Lidz (1995) in the following excerpt:

> Whereas symptomatic assessment focuses on behaviours and characteristics that are typical of children of a particular psychological type or developmental stage, diagnostic assessment relies on an explicit explanatory theory of psychological development in an attempt to penetrate the internal causal dynamic and genetic connections that define the process of mental development (p. 148).

Vygotsky argues that children not only differ in many ways that are not elicited by static approaches, but that many of the important characteristics of children's cognitive functioning cannot be elicited without such interaction (Lidz, 1995): "Assessment practices that focus entirely on the child's unaided performance fail to tap important differences in mental functioning that can be identified by analyzing how the child responds to assistance from adults or more capable peers" (Vygotsky cited in Minick, 1987, p. 120). Scaffolds from more competent sources can tap functions that are emerging which may have not been evident otherwise (Lidz, 1995). In essence, this means that “what the child is able to do in collaboration today, he or she will be able to do independently tomorrow” (Benjamin, 2008). This is linked to Vygotsky's conceptualization of the zone of proximal development (ZPD) and internalisation.

Vygotsky's (1978) construct of the *zone of proximal development* has captured the imagination and attention of cognitive researchers and assessors and is now widely influential in education circles (Elliot, 2003; Lidz, 1995). The basic notion of the ZPD is that learners can be characterized by "what they are already able to perform independently" and "how they function with the help of a more expert collaborator" (Lidz, 1995, p. 148). Traditional measures of cognitive functioning provide information about the learner's current, independent levels of functioning, while dynamic assessment elicits the ZPD. The ZPD is created by the interaction and is a function of the interaction - a meeting place for the "scientific" concepts of the adult and the "spontaneous" concepts of the child (Lidz, 1995, p. 148). To describe and explain what he meant by the ZPD, Vygotsky (1934/1986 cited in Minick, 1987) uses the example of two children, both with, for example, a mental age of eight years. Usually, this is where many of the static measures stop, but Vygotsky argues we should rather attempt to determine how each of these children will solve tasks that were meant for older children. This can be done by assisting each child through demonstration through leading questions and by introducing the initial elements of task solution. With the help or collaboration from the adult, the one child is able to solve problems characteristic of a twelve-year-old, whereas the other is only able to solve problems characteristic of a nine-year-old. The difference between the child's actual level of development and the level of performance the child achieved in collaboration with the adult, defines the zone of proximal development. In this example, the zone can be expressed by the number four for the one child and the number one for the other. Vygotsky argues that because of this, we cannot assume that these two children stand at identical levels of mental development. "The ZPD for Vygotsky was not a means of assessing learning potential or learning efficiency", but rather a means of gaining insight into the kinds of psychological processes that the child might be capable of in the next phase of development and

identifying the kinds of instruction that will be required if the child is to realize this potential (Benjamin, 2008). **Appendix B** provides an illustration of the ZPD.

Vygotsky challenged Piaget's views on biological determinism and claimed that higher psychological functions (such as perceptions, voluntary attention and logical memory) develop through social interaction (Feuerstein & Feuerstein, 2001; Lidz, 1995). According to Vygotsky, the development of mental processes of children results from the *internalisation* of the socially determined cultural heritage and that the biological factors provide only the framework of the child's capacity for internalisation (Tzuriel, 2001). He suggested that children develop by "internalizing and transforming ways of operating mentally which they learn first in social interaction with more competent persons" (Green, 1996, p. 136). Cognitive activities first learned in the interpersonal domain later become internalized and self-regulated within the intrapersonal domain (Benjamin, 2000). Through the internalisation mechanism, the potential development becomes the actual development; in other words, they become part of the child's independent developmental achievement (Tzuriel, 2001). Fundamental to Vygotsky's theory is the concept that "advanced human mental processes have their origin in collaborative activity, mediated by verbal- and/or non-verbal interaction" (Benjamin, 2008). The tool for internalisation, according to Vygotsky, is language. The consequences of the verbal interactions between a child and a more capable person become represented in the child's intramental plane through language (Wertsch & Tulviste, 1992 in Tzuriel, 2001; Lidz, 1995). Green (1996) has noted that "children are initiated by their caregivers into the use of cognitive tools, such as language, which make thinking tasks easier" (p. 136). For Vygotsky, context and cognition are inseparable. Therefore, there is "no understanding of the child's thinking without understanding its embeddedness" (Lidz, 1995, p. 149).

Implications of Vygotsky's theory for dynamic assessment

Our theoretical framework not only leads our decisions about how we go about conducting assessments, but also determines what we choose to assess and how the information is interpreted. From a Vygotskian perspective, assessments would be expected to include elements of the following: social transaction and discourse, contextual embeddedness, and creation of a ZPD – which are the elements that define the essence of dynamic assessment (Lidz, 1995).

In assessments based on static measures and traditional developmental theories, the child is "followed" and the task or test is terminated when the child meets the ceiling level of the test. In contrast, from a Vygotskian perspective, assessment leads the child. "The assessment becomes most relevant and interesting just at the point where other approaches stop – at the ceiling level" (Lidz, 1995, p. 149). In addition, Benjamin (2008) argues that instruction is most useful when it moves

ahead of development. When it does, "it awakens a whole new series of functions that are in a stage of maturation lying in the ZPD" (Benjamin, 2008). Vygotsky's understanding of development emphasises the centrality of language and the importance of instruction and guidance in helping children to construct their world. His view distinctly differs from Piaget's, who states that children can undertake tasks unaided, if provided with appropriate environments (Green, 1996).

To summarise, Vygotsky was one of the earliest critics of psychometric approaches to the assessment of cognitive functioning, and one of the first who suggested that "learning" and "interaction" provide more valid bases for the determination of a child's cognitive functioning. Most of all, he focuses our attention on the importance of the social environment in cognitive development, as well as the collaborative nature of instruction in facilitating growth. "Dynamic assessment operationalizes Vygotsky's ideas and promises not only to link assessment with instruction and intervention, but to bring all of these closer to their roots in the process of development of cognitive functioning" (Lidz, 1995, p. 151).

Vygotsky's elaboration of the concept of "zone of proximal development" has captured the imagination of a number of researchers who have made major contributions to the development of dynamic assessment procedures. The best-known of Vygotsky's followers in dynamic assessment are Campione and Brown and Guthke. These two approaches will be discussed later on in this chapter (see 2.5.2.2 and 2.5.2.5). Kozulin and Presseisen (1995 in Tzuriel, 2001, p. 31) argue that "Vygotsky made no attempt to elaborate the activities of human mediators beyond their function as vehicles of symbolic tools". However, Feuerstein played a significant role in this regard. He operationalized the ideas of Vygotsky into an assessment procedure and described the specific nature of interactions that would create a "zone of proximal development" (Lidz, 2003).The following section will consider his contribution to the development of dynamic assessment.

2.3.3 Feuerstein

According to Burgess (2001), Feuerstein's theory of Structural Cognitive Modifiability (SCM), as well as the applied products such as the Instrumental Enrichment (IE) Program, the Learning Propensity Assessment Device (LPAD) and the concept of Mediated Learning Experiences (MLE) are "the most significant innovations in educational psychology of the twentieth century" (p. 3). Tzuriel (2001) and other researchers (such as Elliot, 2003, 2000; Lidz, 2003, 1987) note that Feuerstein developed his theory independently about three decades after Vygotsky's ideas had been published in the Soviet Union, without being familiar with Vygotsky's ideas. Feuerstein's MLE theory relates directly to the ideas of Vygotsky, as both believed in the centrality of mediation in cognitive development.

Burgess (2001) notes that Feuerstein's theory is "a synthesis of Judaic thought, social psychology, developmental psychology and classical tenets first proposed by other seminal thinkers, such as the Socratics" (p. 3). However (as noted before), when Feuerstein studied at the University of Geneva, he was also influenced by the ideas of André Rey and Jean Piaget (Lidz, 2003; Feuerstein, 2000). He collaborated with André Rey and adapted a number of his tests which eventually formed part of his Learning Propensity Assessment Device (Lidz, 2003). Although Feuerstein uses some of Piaget's maturational terminology, such as the term "structure", "he does not agree with Piaget's whole maturational approach" (Tzuriel, 2001, p. 30). Sharron (1987) remarks that Feuerstein did not discount the work of his "teacher" (Piaget), but criticized it as a simplified and mechanistic explanation of child development.

Like Vygotsky, Feuerstein views human beings as open systems that are able to change and learn (Tzuriel, 2001; Boeyens, 1989). Therefore he criticizes Piaget's S-O-R model (where (O) the organism processes the impinging stimuli (S) and consequently produces a specific response (R)) for "not taking into account individual differences deriving from factors that are related to parent-child mediations and interactional patterns in the family" (Tzuriel, 2001, p. 30). Feuerstein and Vygotsky contributed in introducing human mediation as a critical factor which, together with other factors, determines intellectual development. The MLE model (S-h-O-h-R) includes the mediator (h) who interposes him-or herself between the child (O) and the response (R) - see **Appendix C** for an illustration of this model. The mediation here is aimed at changing the person's response style so that "problem solution will find proper and efficient external expression" (Tzuriel, 2001, p. 29).

Much like Vygotsky's development of the ZPD concept and its application to dynamic assessment, Feuerstein's theories of Structural Cognitive Modifiability (SCM) evolved in a historical, political, social and cultural context and perspective (Tzuriel, 2001). Feuerstein's theory was developed after the establishment of the State of Israel, when there was a massive immigration of hundreds of thousands of Jews from all over the world (Tzuriel, 2001). Feuerstein found that many of the immigrants who had to go through an accelerated process of integration (a process that required acquisition of sophisticated technology) were penalized by conventional psychometric tests (Tzuriel, 2001). When "faced with the responsibility of helping to socialize and integrate these traumatized immigrant children" and adolescents, Feuerstein found that he "had to develop an alternative approach to assessment to resolve the discrepancies he perceived between what he thought the children could do academically and socially versus what his results suggested" (Lidz, 2003, p. 114). Therefore, he dedicated the rest of his career to develop assessment measures that would take into account the diverse cultures of the children and adolescents with whom he interacted and that would allow the fulfilment of their learning potential (Tzuriel, 2001).

Consequently, his theories and methods of assessment differ radically from behaviourism and psychodynamic theories (Burgess, 2001).

Feuerstein emphasises the importance of assessing modifiability (learning potential), whereas behaviourists and other proponents of static measures are concerned with what they conceive to be relatively unchanging abilities (Boeyens, 1989). To elaborate on this, Tzuriel (2001) notes that many of the immigrants, who were (initially) diagnosed as "mentally retarded" or "emotionally disturbed" (based on the results of static measures) were assessed as having much better prognoses by dynamic assessment. He further notes that the pessimistic prognosis suggested by the traditional assessment approaches was eventually refuted after these children and adolescents had gone through an intensive intervention programme (that is, Instrumental Enrichment). The assessment and intervention measures developed by Feuerstein and his colleagues are discussed later on in section 2.5.2.4. As Feuerstein's theories are very comprehensive, an in-depth discussion of them is beyond the scope of this thesis. The following section will provide only a brief synopsis of the main assumptions and central tenets of the theories of Structural Cognitive Modifiability (SCM) and Mediated Learning Experience (MLE). For a more extensive overview of Feuerstein's theory, the reader is referred to Feuerstein, Rand and Hoffman (1979), Feuerstein, Rand, Hoffman and Miller (1980), Feuerstein (1989), Feuerstein, Klein and Tannenbaum (1994), Kozulin and Rand (2000), Benjamin (2000), Lidz (2000) and Tzuriel (2001).

The theory of *Structural Cognitive Modifiability* (SCM) describes the unique propensity of human beings to change or modify the structure of their cognitive and motivational functioning to adapt to changing demands of life situations (Feuerstein & Feuerstein, 1994). Feuerstein has described three main characteristics that define structural cognitive modifiability, namely permanence, pervasiveness and centrality (Haywood & Tzuriel, 1992). Permanence refers to the durability of cognitive changes or their endurance over time. Pervasiveness is related to a "diffusion process" in which changes in one part affect the whole. Centrality reflects the self-perpetuating autonomous and self-regulating nature of cognitive modifiability (Tzuriel, 2001; Haywood & Tzuriel, 1992).

Structural Cognitive Modifiability is distinguished from biological (i.e. etiology) or maturational changes (i.e. age) and from fragmentary or transient changes (i.e. severity of condition) (Tzuriel, 1994, 2001), which are often perceived as barriers to change (Benjamin, 2000). Humans are viewed as open systems, amendable to change throughout their life spans and having the capacity to change under specified conditions of remediation, provided that the quality and quantity of intervention matches the person's needs. The "belief that structural change is dynamic and that deficient cognitive functioning is reversible evokes a sense of optimism" (Benjamin, 2000, p. 21) and hope.

Unlike behaviourists and other professionals operating within a medical/deficit paradigm, SCM theory does not assume that the cause of (cognitive) deficiencies is located exclusively in the learner, but that it is rather attributed to a lack of adequate mediated learning experiences (Lomofsky, 1994). In other words, it is the "quality and quantity of mediated experiences that is regarded as an explanatory factor of individual difference" (Benjamin, 2008). These assumptions shift the responsibility for an individual's modifiability from the developing child or person in treatment to the mediating adult (Tzuriel, 2001; Haywood & Tzuriel, 1992).

Mediated Learning Experience (MLE) refers to an interactional process in which an adult interposes him- or herself between a child and a set of stimuli and modifies them by affecting their frequency, order, intensity and context. The mediated child is aroused to a high level of curiosity, vigilance and perceptual acuity. Both the child and the mediator interact to improve and/or create the cognitive functions required for temporal, spatial and cause-effect relationships. The MLE processes are internalized by the child and gradually become an integrated mechanism of change in the child (Tzuriel, 2001, pp. 24-25).

Feuerstein maintains that MLE is essential for development and learning and that the quality and extent of MLE a child is given, or when the child is in a position to make use of, are the immediate determinants of poor performance in all cases where intelligence appears to be lacking (Green, 1996). According to Feuerstein and his colleagues (1980), three major criteria are responsible for the individual's cognitive modifiability, namely 1) intentionality and reciprocity, 2) transcendence (transfer) and 3) mediation of meaning. These are considered to be universal and can be found in all races, ethnic groups and socio-economic strata. "Mediation does not depend on the language modality or content and can be carried out by gestures, mimicry and verbal interaction, provided that the three major criteria are present" (Tzuriel, 2001, pp. 24-25). The other MLE criteria (Tzuriel, 2001; Feuerstein, 2000) include mediation for the following:

- Feelings of competence
- Self-regulation
- Sharing behaviour
- Individuation and psychological differentiation
- Seeking of goals
- Seeking of challenge
- Change
- Search after optimistic alternatives
- Feelings of belonging

The MLE criteria are "task dependent, strongly related to culture and reflect variations in cognitive styles, motivation, type or content of skills mastered and the structure of knowledge" (Tzuriel, 2001, p. 26). Besides the elaborated list of MLE criteria, Feuerstein further suggested a list of deficient cognitive functions that are partly the result of a lack of or inadequate MLE, a "cognitive map" that specifies task dimensions analytically(such as the content of the mental act, language in which the task is expressed, main thinking stage (i.e. input, elaboration, output), cognitive operations required and the level of complexity of the task) and a conceptual framework that defines the role of distal and proximal factors as determinants of cognitive development (Tzuriel, 2001; Feuerstein, 2000; Feuerstein, 1994).

As mentioned earlier, beyond the theoretical concepts, the MLE theory has produced practical tools for diagnostic and intervention processes. These include the Learning Propensity Assessment Device (LPAD-Basic) and the Instrumental Enrichment Program (IE-Basic) (Tzuriel, 2001).

2.3.4 Haywood, Lidz and Sternberg

Carl Haywood and Carol Lidz are among the current leading researchers and practitioners in the field of dynamic assessment and have published numerous books, articles and research papers. In their latest collaboration, Haywood and Lidz (2007) have produced a guide to make the application of dynamic assessment more "user-friendly" to professionals working in clinical and educational settings.

Haywood and Lidz (2007) and Sternberg (2002) propose a "contemporary view of intelligence as an alternative to the narrow and technically oriented approaches" of conventional intelligence tests (Benjamin, 2000). Haywood and Lidz (2007) view the nature of mental functioning from a transactional perspective. Here the focus is on learning a set of fundamental cognitive functions in order to have ready access to intelligence (Benjamin, 2000). These cognitive functions include learned information components of intelligence and the internal processes that underlie intelligent behaviour (Haywood & Switzky, 1992). Haywood (in Haywood & Lidz, 2007; Haywood, 2008) distinguishes between intelligence, which he claims is largely genetically determined and only modestly modifiable, and cognitive processes, which are acquired through experience:

> The most fundamental difference between intelligence and cognition (cognitive and metacognitive processes) is their respective origins. According to the transactional perspective, intelligence is primarily genetic, whereas cognitive processes must be acquired. The corollary assumption is that, whereas cognitive processes are only modestly modifiable with great effort, systematic cognition, having been acquired in the first place, is eminently modifiable: Whatever is learned can be unlearned, modified or re-learned (pp. 25-26).

Table 2.1: A Comparison of Intelligence and Cognition on Six Criteria: Source, Modifiability, Character, Modes of Assessment, Composition and Developmental Requirements

	Intelligence	***Cognition***
Source	Largely genetic	Acquired, learned
Modifiability	Modest	High
Character	Global, g	Specific and generalizable
Assessment	Achievement	Process
Composition	Intellectual	Mix of native ability, motives, habits, attitudes
Developmental requirements	Genes, nutrition, health, safety, fostering environment	Active, directive teaching; mediation of cognitive processes

Sources: Haywood, 2008; Haywood & Lidz, 2007

According to the transactional perspective, three principal dimensions of human ability (ability to think systematically and effectively) are intelligence, cognition and motivation. The ever-changing relations of the three principal dimensions make the model transactional. The general transactional perspective holds to the following tenets: 1) ability is multifaceted; 2) ability is multi-determined; 3) individual differences in intelligence are not sufficient to account for differences in logical thinking and learning; 4) motivation is an essential component of performance ability. Unfortunately, it is beyond the scope of this chapter to discuss these in depth. Therefore, the reader is referred to Haywood and Lidz (2007, pp. 22-34), Haywood, Tzuriel and Vaught (1992, pp. 43-52) and Benjamin (2000, pp. 53-54).

Haywood also distinguishes between predominantly intrinsically or extrinsically motivated persons, as these have a direct influence on performance, the development of cognitive processes and the modifiability of intelligence and cognition (Benjamin, 2000).

Table 2.2: The Differences between Intrinsically and Extrinsically Motivated Persons

Intrinsically Motivated Persons	**Extrinsically Motivated Persons**
Seek *satisfaction* by concentrating on:	Avoid *dissatisfaction* by concentrating on:
Task involvement	Avoidance of effort
Challenge	Ease
Creativity	Comfort
Responsibility	Safety
Learning	Security
Psychological excitement	Practicality
Aesthetic considerations	Material gain

Source: Haywood & Lidz, 2007

Robert Sternberg (1997) defines intelligence as "comprising the mental abilities necessary for adaptation to, as well as selection and shaping of, any environmental context" (p. 1030). In a more recent publication (Sternberg & Grigorenko, 2002), he refers to these mental abilities as "forms of developing expertise" and argues that conventional intelligence tests measure only a limited aspect of developing expertise. Linked to this, "developing expertise" can be defined as "the ongoing process of the acquisition and consolidation of a set of skills needed for a high level of mastery in one or more domains of life performance" (Sternberg & Grigorenko, 2002, p. 3). According to Sternberg and Grigorenko (2002),

> good performance on ability tests requires a certain kind of expertise, and to the extent this expertise overlaps with the expertise required by schooling or by the workplace, there will be a correlation between the tests and performance in school or in the work place. Such correlations represent no intrinsic relation between ability and other kinds of performance, but instead represent overlaps in the kinds of expertise needed to perform well under certain kinds of circumstances (p. 3).

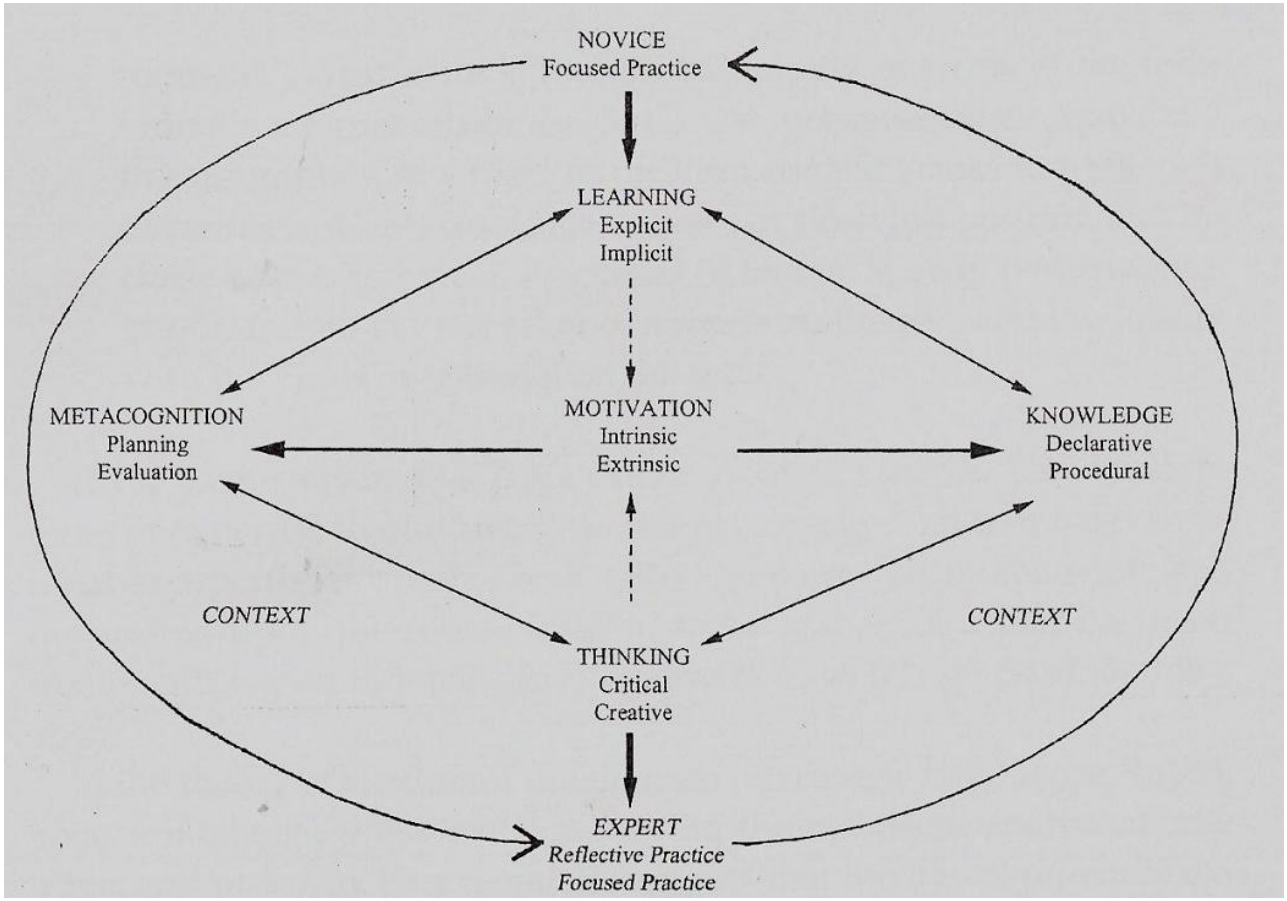

Figure 2.1: The specifics of the Developing Expertise Model

Source: Sternberg & Grigorenko, 2002, p.7

At the heart of the model is the notion that individuals are constantly in a process of developing expertise when they work within a given domain. They may and do, of course, differ in rate and asymptote of development. However, "the main constraint in achieving expertise is not some fixed or prior level of capacity, but purposeful engagement involving direct instruction, active participation, role-modeling and reward" (Sternberg & Grigorenko, 2002, p. 5). As is evident in Figure 2.1, the model has six elements, namely metacognitive skills, learning skills, thinking skills, knowledge, motivation and expertise. Although it is convenient to separate these elements, they are fully interactive, as shown in the figure. They influence one another directly and indirectly (for instance, learning leads to knowledge, but knowledge facilitates further learning) (Sternberg & Grigorenko, 2002).

2.4 APPLICATIONS OF DYNAMIC ASSESSMENT

The use of dynamic assessment has been researched by a number of researchers in various fields. In a recent publication, Haywood and Lidz (2007) discuss the clinical and educational application of dynamic assessment to various populations in detail. These include the following: young children,

school-age children (also see Lidz & Elliot, 2000), adults and the elderly. The table below provides a useful description of the application of dynamic assessment in different populations and relevant researchers in the field.

Table 2.3: Applications of Dynamic Assessment

Population	Studies
Socially disadvantaged children	Feuerstein et al., 1979; Luther & Wyatt, 1990; Tzuriel, 1989b; Tzuriel & Klein, 1985
Persons with mental retardation	Budoff, 1967 & 1987; Ashman, 1992; Paour, 1992; Büchel, Schlatter & Scharnhorst, 1997; Schlatter & Büchel, 2000
Deaf children	Katz & Bucholz, 1984; Keane, Tannenbaum & Krapf, 1992; Tzuriel & Caspi, 1992
Gifted disadvantaged children	Skuy, Kaniel & Tzuriel, 1988; Hickson & Skuy, 1990; Bolig & Day, 1993; Boreland & Wright, 1994; Lidz & Macrine, 2001
Penitentiary inmates	Silvermann & Waxman, 1992
Adults with learning difficulties	Barr & Sameuls, 1988; Kaniel & Tzuriel, 1992
Children with learning difficulties / disabilities	Missiuna & Sameuls, 1989; Sameuls, Tzuriel & Malloy-Miller, 1989; Swanson, 1995; Gerber, 2000 (students)
Learners with severe developmental disabilities	Jepsen, 2000
Patients with brain damage	Bates, Kuhl & Sowarka, 1922; Heinrich, 1991; Haywood & Miller, 2002
University students	Shochet, 1992; Murphy & Maree, 2006
Preschool and young children	Tzuriel & Klein, 1985; Mearig, 1987; Lidz & Thomas, 1987; Tzuriel & Weiss, 1988; Gamlin, 1989; Tzuriel, 1989; Tzuriel & Eran, 1990; Tzuriel & Ernst, 1990; Burns, 1991; Lidz, 1991; Tzuriel, 1995a & 1995b; Hessels, 1997; Kahn & King, 1997; Waters & Stringer, 1997; Tzuriel, 1998; 1999b; Kahn, 2000; Hessels, 2000; Lidz, 2003
Infants	Klein, 1992; Kahn, 2000
Ethnic minorities	Gupta & Coxhead, 1988; Hessels & Hamers, 1993; Hessels, 1997; Tzuriel & Kaufman, 1999; Hessels, 2000; Peña & Gillam, 2000
Psychopathology	Haywood & Tzuriel, 2002; Haywood and Lidz, 2007; Weingartz, Wiedl & Watzke, 2008
Psychotherapy and counselling, cognitive therapy	Cornfield, 2001; Falik, 2000; Hadas-Lidor, Naveh & Weiss, 2006

Sources: Haywood & Lidz, 2007; Murphy & Maree, 2006; Lidz, 2003; Tzuriel, 2001; Lidz & Elliot, 2000; Haywood & Tzuriel, 1992.

Dynamic assessment has also been applied to the fields of psychotherapy and counselling (Haywood & Lidz, 2007; Cornfield, 2001; Falik, 2000) and the professional practice of educational psychologists, for instance in linking assessment and intervention (Bosma & Resing, 2008; Yeomans, 2008; Hymer, Michel & Todd, 2002; Greenberg, 2000; Elliot, 2000 & 2003; Lidz & Elliot, 2000; Burden, 2000). Research is also being conducted in the field of neuropsychology, the assessment of cultural differences and the evaluation of cognitive education programs (Haywood & Tzuriel, 2002). In addition, "the potential of using computers to provide systematic assistance and feedback, contingent upon the child's responses, is also being explored" (Elliot, 2000, p. 63; Lidz & Elliot, 2000; De Beer, 2000).

2.5 PROCEDURES OF DYNAMIC ASSESSMENT

Lidz and Elliot (2000) assert that dynamic assessment encompasses a variety of theories, methodologies, functions and goals. The following section will include a brief overview of the primary procedure models of dynamic assessment before looking into the most prevalent approaches in the field of dynamic assessment.

2.5.1 Primary procedure models of dynamic assessment

Dynamic assessment procedures vary on a number of dimensions, but primarily with regard to the degree of standardization of interventions, as well as the content. There are four basic models that fit most of the procedures (www.dynamicassessment.com):

1. An *open-ended clinical approach* that follows the learner, using generic problem-solving tasks such as matrices. The approach to intervention focuses on principles and strategies of problem solving and aims to promote independent problem solving. An example of this procedure model is the approach of Feuerstein and his colleagues.
2. Use of *generic problem-solving tasks, but offering a standardised intervention*. All learners are provided with the same intervention involving principles and strategies for problem solving. These approaches tend to focus on classification of learners, attempting to reduce the negative results of cultural bias. Examples of this procedure model include the approaches of Budoff and Guthke.
3. A *graduated prompting procedure* where learners are offered increasingly more explicit hints in response to incorrect responses. All learners' progress through the same menu of prompts or hints, varying with regard to the number of prompts required for task solution. The work of Campione, Brown and their colleagues are based on this approach.
4. *Curriculum-based approaches* that use actual content from the learner's educational programme, with interventions based on "best practices" of teaching. These can vary regarding the degree of

standardization of interventions. These approaches focus on Individual Education Plan (IEP) development for learners with special needs. Carol Lidz and Ruthanne Jepsen are the leading researchers developing this approach.

Sternberg and Grigorenko (2002) differentiate between two formats, namely the sandwich format and the cake format. The sandwich format involves administering a measure (the pretest) that is completed in an unassisted fashion. On the basis of the testee's response, contingent instruction is provided that is geared to the individual's identified strengths and weaknesses. Subsequently, an alternative form of the original test (posttest) is provided. In recognition of the psychometric problems that result from the use of "gain scores" (that is, the difference between pre- and posttest scores), the posttest scores are generally considered by researchers to be statistically more justifiable. Therefore, clinicians who are likely to find an individual's progress following intervention of particular interest for planning further work should recognise that gain scores may prove problematic when used for comparative purposes (Elliot, 2003, p. 17).

The cake format dispenses with the pre- and posttest format. The testee is presented with a series of items, and assistance is provided immediately when difficulties are encountered. Once a solution has been reached, the next item is presented. The type of assistance offered can be highly standardised involving a predetermined hierarchy of hints (like Guthke & Beckmann, 2003) or individualised on the basis of clinical judgment (like Feuerstein et al., 1979) (Elliot, 2003, p. 17).

The author acknowledges that there are many more dynamic assessment procedure models than discussed in this chapter. However, it is beyond the scope of this chapter to discuss each of them in depth. For more information on these approaches, see Lidz (1987), Haywood and Tzuriel (1992), Sternberg and Grigorenko (1998, 2002) and Lidz and Elliot (2000). The next section will only briefly discuss the different dynamic assessment approaches within the aforementioned procedure models.

2.5.2 Different approaches to dynamic assessment

2.5.2.1 Learning potential testing (Budoff)

Milton Budoff (1987 b) designed his standardised approach for a specific psychometric purpose: to classify students with mental retardation with greater accuracy (Lidz, 2003; Benjamin, 2000). Working in the late 1960s to the mid-1970s, Budoff was concerned about the misclassification of students who lacked the background experiences that were assumed to be in place by the major tests used for classification purposes. For this reason, his procedures were designed to discriminate between children with mental retardation and those who were more accurately labelled as children with "pseudo-mental retardation" (Budoff, 1974 cited in Campione & Brown, 1987, p. 82). Budoff

did this by administering tests similar to some of those in Feuerstein's LPAD battery, according to the pretest-intervene-posttest format. However, the intervention was predesigned and standardised to teach the basic principles and strategies of task solution. In Budoff's approach, direct instruction is provided in methods of solving problems (Budoff, 1974 cited in Campione & Brown, 1987). All students received the same intervention, at times administered in groups, and the results were analyzed in terms of students who made significant gains from the pretest to the posttest versus those who did not (Lidz, 2003). Budoff found that practice alone does not account for post-test score effects. Therefore, "a prognosis based on a static IQ score was seen as reversible" (Benjamin, 2000, p. 60). The standardization made this approach much more amendable to research, and Budoff was able to generate a good deal of evidence regarding the validity of his approach. His procedure remains in use in a number of places in America, especially for identification of culturally diverse gifted students (Lidz, 2003).

2.5.2.2 Graduated prompt (Campione and Brown)

Inspired by Soviet psychology and Vygotsky's ideas, Campione, Brown and their colleagues developed the graduated prompt approach and carried out a series of studies to examine the reliability of the dynamic assessment measures (Tzuriel, 2001; Campione & Brown, 1987). They sought to operationalize Vygotsky's concept of the ZPD. They did this through the development of a rubric for counting the number of hints the students needed to solve problems. These hints provide a sequence of approximation to task solution (Lidz, 2003). The principle behind the graduated prompt procedure is basically to help the individual gradually until he or she solves a task. Mediation in this approach is delivered by predetermined hints that range from general to specific. The examiner stops providing hints when the individual reaches the level of independent task solution predetermined by the task. The amount of aid needed to solve a problem is taken as an indication of the individual's ZPD. The graduated prompting process of assessment utilizes the ZPD to predict children's readiness to learn or the benefits from accrued instruction (Benjamin, 2000; Jitendra & Kameenui, 1993). Unlike other dynamic assessment approaches, the outcome measure in the graduated prompt approach is not the amount of improvement in the individual's performance, but rather the amount of help or mediation needed to reach a specific criterion. Consequently, one can infer how much additional help is needed to transfer the learned principles to novel situations. The outcome measures according to this approach are the sums of the total number of hints given at each of the testing phases (i.e. initial learning, maintenance and transfer) and the total number of hints for all the testing phases. A profile of the outcome measure is taken as an indication for the individual's ZPD. The assumption is that an individual with a broad ZPD profits more from the mediation and needs less help than an individual with a narrow ZPD (Tzuriel, 2001).

The procedure starts with introduction of an initial problem. Once this problem is solved, another version of the problem is given and the number of prompts required to solve the new problem is taken as an indication for transfer of learning. The efficiency of learning is operationalized by the number of prompts and the breadth of transfer. The breadth of transfer is examined in terms of the degree of success with maintenance problems (i.e. problems that are parallel to the initial ones), near transfer problems (i.e. problems that are similar to the training problems contextually and formally) and far transfer problems (i.e. problems that are similar to the training problems contextually but incorporate a new relation) (Tzuriel, 2001). In this approach, the task, not the student, is analysed (Lidz, 2003).

2.5.2.3 Testing-the-limits (Carlson and Wiedl)

This approach is based on the premise that "intellectual and personality factors account for intra-individual differences in processing information" (Benjamin, 2000, p. 61). Testing of limits is conducted after the test has been administered in the standardised fashion. Any changes in performance do not affect the overall final score, but add vital qualitative information concerning the hidden potential of the person to perform the required tasks under non-standardised conditions. Results obtained from testing-of-limits procedures can be recorded by an examiner after the normal procedures of the test have been followed. The results are then used to inform the interpretation of the testee's performance. In most instances, "scores are likely to indicate greater intellectual potential in a person than is demonstrated by poor performance on a standardised test" (Lewis, 1998, p. 231).

This approach differs from other dynamic approaches in that specific interventions are integrated directly into the testing procedures (Carlson & Wiedl, 1979). Testing-the-limits approaches are used to assess the limits of the child's abilities by incorporating various procedures that lead to higher levels of performance. Therefore, the typical dynamic "test-teach-test" paradigm is not necessary. This dynamic assessment approach does not require changes in the general structure or the content of traditional tests; rather, modifications are made in the testing context. Based on various measures of cognitive ability and personality, it was found that, irrespective of the test used, dynamic assessment led to higher levels of performance than the standardised testing condition (Benjamin, 2000; Carlson & Wiedl, 1979).

To summarise, testing of limits involves going beyond the standardised instructions and methods to obtain additional information about the examinee. This is done by re-administering sections of the test or specific test items using procedures different from those required by the standardised instructions and by changing the role of the assessor during retesting (Lewis, 1998). This procedure

can be applied "in such ways as not to spoil the normative characteristics of the tests, for example, clarification and elaborated feedback tactics can be applied to test the limits after a normative score has been obtained" (Haywood & Lidz, 2007, p. 17).

2.5.2.4 Mediational assessment (Feuerstein)

Feuerstein typically launches directly into intervention while working with his clients. He analyzes an individual's performance in relation to evidence of a number of possible cognitive deficiencies to which he addresses his mediations during the course of the interactions around his extensive battery of *Learning Propensity Assessment Device* (LPAD) tasks. This approach is highly intuitive and clinical and requires in-depth familiarity with Feuerstein's theory of cognitive modifiability, and particularly, his concepts of mediated learning experience (see 2.3.3), his extensive listing of cognitive deficiencies (see **Table 2.4** below. For other versions and explanation of the cognitive functions, see **Appendix D**) and the demands of each task (Lidz, 2003).

Table 2.4: List of Deficient Cognitive Functions

Impaired cognitive functions at the **Input Phase**	Impaired cognitive functions at the **Elaboration Phase**	Impaired cognitive functions at the **Output Phase**
• Blurred & sweeping perception • Unplanned, impulsive & unsystematic exploratory behaviour • Lack of or impaired receptive verbal tools and concepts which affect discrimination (e.g., objects, events and relationships are not appropriately labelled). • Lack of or impaired spatial orientation and lack of stable systems of reference by which to establish organisation of space • Lack of or impaired temporal concepts • Lack of or impaired conservation of constancies (e.g. size, shape, quantity, colour, orientation) across variations in one or more dimensions • Lack of or deficient need for precision and accuracy in data gathering • Lack of capacity for considering two sources of information at once. This is reflected in dealing with data in a piecemeal fashion rather than as a unit of facts that are organised.	• Inadequacy in the perception of the existence of a problem & its definition • Inability to select relevant cues in defining a problem • Lack of spontaneous comparative behaviour or the limitation of its application by a restricted need system. • Narrowness of the mental field. • Episodic grasp of reality. • Lack of need for the education/ establishment of relationships • Lack of need for and/ or exercise of summative behaviour • Lack of or impaired need for pursuing logical evidence • Lack of or impaired inferential-hypothetical thinking • Lack of or impaired strategies for hypothesis testing • Lack of or impaired planning behaviour • Lack of or impaired interiorisation • Non-elaboration of certain cognitive categories, because the verbal concepts are not part of the individual's verbal inventory at a receptive level, or because he/she is not mobilized at the expressive level	• Egocentric communication modalities • Difficulty in projecting virtual relationships • Blocking • Trail-and-error responses • Lack of or impaired verbal or other tools for communicating adequately elaborated responses • Deficiency in visual transport • Lack of or impaired need for precision and accuracy in the communication of one's responses • Impulsive, random, unplanned behaviour

Source: Feuerstein & Feuerstein, 2001, p. 232

The purpose of the LPAD is to assess the modifiability of the individual by evaluating the processes of change and then attempting to remedy the deficiencies. Arguing that it is pointless to attempt to measure something that is constantly in a process of change, Feuerstein's approach involves a process of ongoing intervention (Birnbaum & Deutsch, 1996 in Elliot, 2000). Therefore, the Learning Propensity Assessment Device is a continuous teach-test procedure rather than a test-teach-test procedure (Tzuriel, 2001). Freed from the requirement to act in a uniform fashion with everyone, the assessor can assist, encourage and teach in ways that are most helpful to individual learners and thus gain a more valid picture of their potential (Elliot, 2000).

The examiner intervenes during both the teaching phase and the testing phase to assist the examinee to use effective cognitive strategies, rules and behaviours to arrive at the correct response. This approach does not provide an objective baseline and hence necessitates, as previously mentioned, expert clinical administration in which mediation is provided only when necessary and careful records are kept. The LPAD tasks are constructed to permit learning processes. The tasks do not tap specific contents, but rather relate the general cognitive aspects (i.e. deficient cognitive functions) that are responsible for failure. Most tasks within the LPAD are constructed to be sensitive to change through variation of task complexity and abstractness. In a typical task, the examinee is taught a problem using a mediational style and the application and transfer of learning of rules, principles and strategies to other problems are examined. A detailed description of the main characteristics can be found in Feuerstein et al. (1995, 1988, 1980, 1979).

The mediation process in dynamic assessment is composed of a series of steps by which the examiner is leading the child to register the information systematically, understand the problem, use and internalize efficient cognitive strategies, self-regulate behaviour and use metacognitive strategies. The examiner is not supposed to provide the necessary information immediately after the child has revealed difficulty, but rather use mediation processes so that the child arrives at the solution independently. The examiner might focus the child on the dimensions of the problem, create associations with previously known concepts, connect past events to present experiences, emphasise efficient and inefficient behaviour patterns, give feedback on the solution process and the quality of the answer and encourage the child on successes even if they are partial (Tzuriel, 2001). The mediation process includes a) improving (deficient) cognitive functions, b) preparing the child for complex tasks by establishing pre-required thinking behaviours, c) self-regulating by planning and organising the solution, d) enhancing reflective, insightful and analytic processes, e) teaching specific contents that are related to the task-specific context, f) feedback on success or failure in the learning process and g) developing basic communication skills and adequate response styles (Tzuriel, 2001).

According to Tzuriel (2001, pp. 56-57), the most articulated characteristics of Feuerstein's dynamic assessment approach are as follows:

- The assessment is focused mainly on learning processes.
- The specific deficient cognitive functions serve as "keys" for understanding learning difficulties.
- The degree and type of modifiability of deficient cognitive functions during assessment provide strong indications for future change.
- The degree and type of mediation required for cognitive change as well as the changes that take place during assessment in the mediational efforts provide indications for cognitive modifiability.
- The role of the examiner-teacher in relation to both the examinee and the helping agents is of crucial importance.
- The role of non-intellective factors as determinants of the individual's performance as well as their modifiability is important and integrated into cognitive factors.
- The inclusion of behavioural and non-intellective factors in dynamic assessment provides the assessment with a holistic view of the individual.

What is gained from this approach is "evidence of the learner's responsiveness to interaction on a descriptive level, as well as information regarding the types of interactions and mediations that yielded positive effects and the intensity of the effort involved in eliciting learner modifiability" (Lidz, 2003, p. 115). Feuerstein's interest is in demonstrating and uncovering the learning potential of the individuals with whom he works.

2.5.2.5 The lerntest approach (Guthke)

Guthke's *lerntest* approach is based on Vygotsky's ideas and represents a myriad of testing procedures. The name of this approach implies that it deals with the assessment of learning and that there is learning within the test (Haywood, 2008). Guthke regarded Vygotsky as the true creator of the learning test concept and tried to be faithful simultaneously to the psychometric demands for objectivity and to the measurement of the individual's ability to learn (Guthke, 1992b). The *lerntest* is applied by a pretest-training-posttest paradigm. The intervention in the testing procedure is based on Gal'perin's (1966) theory of systematic formation of mental actions and concepts. Guthke's learning test methodology was also influenced by the theory of activity of Soviet psychology (Leont'ev & Luria, 1964 cited in Tzuriel, 2001). In this approach the assessment focus is on individuals' learning as their dominant activity and not merely on the results of learning (Tzuriel, 2001).

Guthke and his colleagues distinguished several types of learning tests according to the a) *time consumption/ arrangement of the training phase* (long and short term), b) *test content* (Originally, types of items identical to conventional tests were used. In their latest developments, they employ both curriculum-unrelated intelligence tests items and curriculum-related tasks, similar to school achievement tests) and c) *test presentation methods*, i.e. by means of paper and pencil or computer, individually or in groups, as question and answer games (Guthke & Beckmann, 2000a; Guthke & Beckmann, 2000b). Guthke and Beckmann developed procedures that are representative of each type. In general, the learning ability was measured by recording the effects of standardised cues incorporated into the test and the performance of individuals following teaching (Tzuriel, 2001).

An example of a long-term battery is the learning test consisting of a pretest, a training phase of seven days, and a posttest. The learning task is composed of reasoning problems in the three basic domains: verbal, numerical and figural, with parallel items for pre- and posttests. In the training phase, the individuals are taught cognitive and metacognitive strategies for problem solving. Guthke suggested rank ordering the children twice, based on separate norm tables for pre- and posttests. The pretest score indicates the individual's standing in his/her age group and with respect to his/her intellectual status in the domain examined (a standardised approach). The posttest score characterizes the student's position relative to his/her potential for development (dynamic approach) after a controlled educational intervention (Tzuriel, 2001).

The short-term battery is designed so that the training phase is built directly into the test procedures. Short-term learning tests require only one testing session during which systematic feedback and assistance are given. Two types of short-term learning tests can be distinguished: 1) tests providing systematic feedback and 2) tests providing extensive assistance in addition to simple feedback. Some of the tests are based on conventional tests such as the Raven's matrices, whereas others include new items (Tzuriel, 2001).

Guthke and Beckmann (2000a) state that learning tests are designed mainly for use by school (educational) psychologists and support teachers in cases where it is suspected that a traditional intelligence test may not be able to reflect the true abilities of a learner.

2.5.2.6 Curriculum-based dynamic assessment (Lidz)

Curriculum-based dynamic assessment reflects "the need for practitioners to link assessment with meaningful intervention that informs instruction" (Lidz, 2003, p. 116). The flexibility of dynamic assessment allows it to be adapted to a curriculum-based approach. Curriculum-based dynamic assessment differs from diagnostic teaching in the continued focus on cognitive processes. Curriculum-Based Dynamic Assessment (CBDA) tends to emphasise the learning processes rather

than the learning products, i.e. the focus is on how learners approach tasks and mental process obstructions to more competent performance (Lidz, 2003). The test-intervene-test procedure still applies, as does the mediational approach to the intervention phase. What is different is that the specific tasks are content-based, i.e. taken directly from the curriculum (from those areas in which the learner is experiencing difficulty) (Benjamin, 2008). In CBDA, the assessor chooses tasks directly from the classroom that reflect referral concerns, but begins assessment where most procedures terminate – at the ceiling level. CBDA aims to optimise generalization through addressing metacognition; therefore, CBDA asks questions of what mental processes are needed to function in the learner while learning and what processing demands are made on the learner by each task. The CBDA approach allows for optimal individualization and diagnostic exploration, and permits the creation of rubrics so that both quantitative and qualitative information can be generated (Lidz, 2003).

More time and effort are extended to facilitate changes in the learner's functioning, aiming to reduce the capacity-performance gap. In CBDA, the intent is beyond exploring the learner's ability to do a little better on an otherwise standardized test if given more time or in response to modified directions. CBDA investigates the underlying process-based obstructions to learning and addresses these with the mediation selected for intervention during the course of assessment (Lidz, 2003). After the procedure has been administered, a lesson plan is developed based on the results of the assessment, and the teaching sessions based on the results of the assessment are evaluated (Benjamin, 2008). A flowchart of the curriculum-based dynamic assessment model can be found in **Appendix E**.

For an overview of some of the other approaches in dynamic assessment, the reader is referred to **Appendix F**.

2.6 CONCLUSION

This chapter provided a general overview of the history and development of dynamic assessment internationally and locally. The reader was introduced to key theorists in dynamic assessment research and practice. This was followed by a brief discussion of the various applications and primary procedure models of dynamic assessment. Specific approaches were also explained briefly. In the next chapter, specific focus will fall on dynamic assessment in the field of educational psychology and its potential and relevance for educational psychologists.

CHAPTER 3

A REVIEW OF THE RELEVANCE AND POTENTIAL OF DYNAMIC ASSESSMENT FOR EDUCATIONAL PSYCHOLOGISTS

3.1 INTRODUCTION

The previous chapter provided a general overview of the historical and theoretical foundations of dynamic assessment. This chapter will focus specifically on dynamic assessment in the field of educational psychology. First, attention will be drawn to paradigm shifts in educational psychology and how this influence conceptions of intelligence and assessment. This chapter elucidates concerns raised in the literature about conventional standardized testing and highlights an alternative approach, namely dynamic assessment. The reader will be introduced to the basic concepts and premises of dynamic assessment, and the purposes and principles central to dynamic assessment will be explained in detail. The discussion will then move to a critique of the dynamic assessment approach and guidelines for consolidating the identity of dynamic assessment. The chapter will be concluded with an overview of literature that pertains to the relevance and potential of dynamic assessment for educational psychologists.

3.2 ASSESSMENT PARADIGMS IN EDUCATIONAL PSYCHOLOGY

International and local paradigm shifts (discussed in the previous chapter) that have had an impact on the development of dynamic assessment have also had an impact on the field of educational psychology. As Woods and Farrell (2006) state, "the assessment practice of educational psychologists might be seen as moving through different paradigms, both locally and nationally in response to the context in which the educational psychologist has already been working" (p. 390). Hence, this section considers important paradigm shifts in the field of educational psychology and the consequent effects of these on the practices of educational psychologists.

Elliot (2000a) argues that the paradigms (such as the medical-deficit model, reductionism, behaviourism) traditionally underpinning psychologists' assessment practices have become increasingly recognised as being overly narrow, neglectful of interactional and systemic factors and correspondingly of limited value to teachers:

> Recognition that much important learning takes place beyond the classroom has resulted in calls for more ecologically valid assessment in which cognitive, social and cultural factors are considered not only in relation to school, but also to home and local community contexts (p. 64).

Internationally and in South Africa, there seems to be a move away from the "within-child" analyses of static tests (medical/ deficit paradigm), towards the consideration of the broader socio-cultural context by dynamic assessment (inclusion, social constructivist paradigms). More inclusive philosophies and an emphasis upon prevention resulted in greater expectations that educational psychologists will undertake assessments that can yield valuable data to schools in helping children with learning difficulties (Elliot, 2000). Tzuriel (2001) argues that it is important to note that the focus in dynamic assessment is on "ways to bring about change rather than on etiology of the manifest deficiency" (p. 27). He further clarifies that "the biological factors are not ignored, nor are their detrimental facts diminished. The argument is that despite their strength there are ways to overcome them – with some individuals more easily than others" (Tzuriel, 2001, p. 27). This shows a shift in the type of information that is required by teachers and parents from educational psychologists. It is no longer only about understanding why a particular child is having developmental and learning difficulties (i.e. what is wrong), but also about finding appropriate ways to support the child or individual (i.e. what we can do about it).

It is interesting to note that, despite the fact that criticisms against the use of traditional IQ tests by psychologists and non-psychologists have continued almost undebated in the literature for many years, "their employment by educational psychologists as central elements of child assessment shows little sign of decline" (Elliot, 2000, p. 713). Tzuriel (2001) seems to agree when he states that "in spite of awareness about the importance of dynamic assessment for both theory development and practice, it has not been prevalent among psychologists and educators" (p. xi). Furthermore, a study by Lokke et al. (1997) found that 65 percent of responses from educational psychology services indicated that educational psychologists use a "high" number of psychometric intelligence assessments.

The abovementioned findings may have proved problematic since the "role of psychometric cognitive assessment in educational psychology has, in the past, attracted considerable academic criticism, being posited as irrelevant to the processes and products of a modern and inclusive education system" (Woods & Farrell, 2006, p. 390). According to Haywood (2001, in Tzuriel, 2001), one reason for the most persistent problems in the dissemination of dynamic assessment may be related to "the reluctance of practicing psychologists to give it a try, to step beyond the comfortable and familiar, to take additional training, and to invest the time and effort necessary to

master these exciting methods" (p. x). However, Woods and Farrell (2006) state that dynamic assessment, in addition to other forms of cognitive assessment, such as assessments of learning styles and "multiple intelligences", appear to have found more favour in recent years.

Woods and Farrell (2006) note further that literature from academia and continuing professional development sources indicates that educational psychologists have been developing interests and skills in dynamic assessment. Elliot (2000a) also mentions that educational psychologists in many countries are rethinking their traditional roles and functions. Elliot (2000a) identifies the "appropriate functions of psychological assessment" as one of the key issues related to this (p. 60). He explains further that when the role of educational psychologists was perceived principally as one in which tests were conducted in order that children with the greatest need could be identified, and when necessary, provided with some form of special education, static, norm-referenced tests appeared to be particularly appropriate. However, with the introduction of more inclusive practices, there has been a greater expectation that, in addition to describing the child's current functioning and acting as a gatekeeper to special education resources, educational psychologists should provide increasing guidance to teachers and parents on how best to help the child with learning difficulties (Elliot, 2000a).Within these developments, it seems likely that educational psychologists will be required to "justify their distinctive contribution to child assessment and intervention" (Woods & Farrell, 2006, p. 387).

In the light of the above, Lidz (2000b) argues that psychologists' focus should centre upon learning processes. According to this view, the "educational psychologist should be concerned with examining those cognitive processes that are impeding curricular progression, rather than merely ascertaining the child's current level of curricular attainment" (Elliot, 2000b, p. 726). The following section illuminates the main differences between static testing and dynamic assessment.

3.2.1 Static testing versus dynamic assessment

"Dynamic assessment is irrevocably linked to the field of intelligence assessment and therefore to debates within this field" (Murphy & Maree, 2006, p. 170). According to Woods and Farrell (2006), there has been considerable debate about the place and appropriateness of psychometric cognitive assessment of children as part of the whole process of psychological assessment. The following section will outline the main differences between static/conventional testing and dynamic assessment, as well as the distinctive contribution of each approach to educational psychology practices.

The term "static test" refers to a test where "the assessor presents items to the child and records his or her response without any attempt to intervene in order to change, guide or improve the child's

performance" (Tzuriel, 2001, p. 1). Considering this, Haywood (1997, 1993 cited in Tzuriel, 2001; Elliot, 2003, 2000b) asserts that "the problem lies not in what standardised intelligence tests do (that is, to classify and predict subsequent school achievement – tasks he believes they do very well), but rather, what they do not do" (Elliot, 2000b, p. 723). Even though static measures provide important information on children's intellectual performance, they were not designed to provide the type of information given in dynamic assessment procedures, that is, learning potential, learning processes, mediation strategies and specific cognitive functions (Tzuriel, 2001). In addition, the major criticism against normative, standardised assessment measures has been that they are inadequate in revealing children's cognitive capacities, especially those who are not from "mainstream" social, cultural, educational and economic backgrounds (Tzuriel, 2001; Utley, Masters & Haywood, 1992). In the light of this, Haywood (1993, cited in Elliot, 2000, p. 723 and Tzuriel, 2001, p. 4) argues as follows:

> Prediction never was a particularly defensible objective. I could never understand why psychologists want to be fortune tellers! There should be scant satisfaction in knowing that our tests have accurately predicted that a particular child will fail in school. There are many sources of such predictor information. What we need are instruments and approaches that can tell us *how to defeat those very predictions!*" (pp. 5-6, emphasis as in original).

Considering this, Elliot (2003) mentions that Haywood's call for approaches that can defeat gloomy predictions reflects a growing shift in the perceptions of the psychologist's role internationally. Elliot (2003) states further that an increasingly inclusive education system in which the allocation of resources for children with special needs is closely tied to educational performance and individualised target-setting bureaucracies for children with special needs has resulted in pressure for many educational psychologists to adopt more of an interventionist role. Schools increasingly look to psychologists to help generate strategies to assist children with difficulties, a task that is not easily determined on the basis of traditional IQ measures (Elliot, 2003). Recent surveys of UK educational psychologists (Freeman & Miller, 2001; Deutsch & Reynolds, 2000) "highlight widespread recognition that dynamic assessment can assist in collaborating with teachers to plan educational interventions" (Elliot, 2003, p. 22). **Tables 3.1 and 3.2** outline the major differences between static testing and dynamic assessment.

Table 3.1: Major Differences between Normative, Static and Dynamic Assessment Approaches

Dimensions of comparison	Standardized testing (self with others)	Dynamic assessment (self with self)
Major question	• How much has this person already learned? • What can he/she do or not do? • How does this person's current level of performance compare with others of similar demographics?	• How does this person learn in new situations? • How and how much, can learning and performance be improved? • What are the primary obstacles to a more optimal level of competence?
Goals of testing	• Evaluation of static performance • Comparison with peers • Prediction of future success	• Assessment of change • Assessment of mediation • Assessment of deficient cognitive functions • Assessment of non-intellective factors
Outcome	• IQ as a global estimate of ability reflecting rank in order in a reference (normative) group. • Current level of independent functioning, i.e. zone of actual development (ZOA)	• Learning potential: What is possible with reduced obstacles to learning? How can such obstacles be reduced? • How does the individual function with support of a more experienced interventionist, i.e. zone of proximal development (ZPD)?
Orientation	• End products (static) • Objective scores • Profile of scores	• Processes of learning • Metacognitive processes • Understanding of mistakes
Context of testing	• Standardised • Structured • Formal • Parents and teachers are not allowed to observe	• Dynamic, open, interactive • Guidance, help and feedback • Feelings of competence • Parents and teachers can observe
Examining process	• Standardised; same for everybody. Focus on products of past experience	• Individualised; responsive to person's learning obstacles • Focus on processes involved in intentional acquisition of new information or skills
Interpretation of results	• Identification of limits on learning and performance; identification of differences across domains of ability • Documentation of need for further assessment and possible intervention • Objective (mainly) • Average performance	• Identification of obstacles to learning and performance; estimate of investment required to overcome them • Hypotheses regarding what works to overcome obstacles to learning • Subjective (mainly) • Peak performance • Cognitive modifiability • Deficient cognitive functions • Response to mediation
Nature of tasks	• Based on psychometric properties • Termination after failures	• Constructed for learning • Graduated for teaching • Guarantee for success
Role of the examiner	• Poses problems, records responses; affectively neutral	• Poses problems, identifies obstacles, teaches metacognitive strategies when necessary, promotes change; actively involved

Source: Haywood & Lidz, 2007; Tzuriel, 2001

Table 3.2: Contrasting Norm-Referenced Models with the Dynamic Assessment Model

	Norm-Referenced Model	Dynamic Assessment Model
1	Fails to take into account the effect of environmental factors on student performance	Accounts for test performance on the basis of prior learning of students
2	Presupposes classification before intervention	Teaching accompanies assessment
3	Assumes a static notion of intelligence, as something fixed and measurable	Assumes that intelligence is modifiable through instruction and mediated experience
4	Potential for placing disadvantaged students into "dead end" streams of education and vocation	Stress is put on learning potential, therefore classifying for purposes of assigning students to different streams is discouraged
5	Assess for past learning/achievement	Assess for ability to profit from instruction, responsiveness to new material, and the ability to generalize or transfer ideas from original learning situations to new problems
6	Does not have a preventative or remedial component	Assumes that cognitive weakness is temporary
7	Assumes that assessment results are valid over an extended period of time	Assumes that assessment results need to be continually updated

Source: Gamlin (1996 cited in Benjamin, 2001, p. 67)

Elliot (2003) argues that, at an intuitive level, a test measure that includes an examination of the capacity of the child to learn when provided with scaffolded instruction that is tailored to offer the minimum assistance necessary for successful performance and then permits examination of transfer to other tasks would appear to be more valid and meaningful for educational settings (p. 16). However, most proponents of dynamic assessment do not wish to replace conventional static tests entirely with dynamic assessment approaches. Tzuriel (2001) states that "dynamic assessment is a useful and rich and complementary approach that together with standardised, normative assessment portrays a holistic and accurate picture of cognitive functioning" (p. xi).

Similar to standardised, normative assessment, dynamic assessment demands the gathering of information from a variety of sources. This includes the social history, static test performance (in order to obtain the zone of actual development, ZAD), achievement in academic and other settings and cognitive modifiability inferences derived from dynamic assessment (Haywood in Tzuriel, 2001, p. ix). Each dynamic assessment procedure provides different information, and assessors need to determine what information they need.

3.2.2 Paradigm shifts in concepts of intelligence

Paradigm shifts in the field of educational psychology have also had an impact on the way intelligence is conceived and understood. According to Feuerstein et al. (1979), the paradigm shift

from static towards dynamic assessment resulted in four changes (Tzuriel, 2001, pp. 55-56, emphasis added), namely:

1. Shift in the *nature of the tasks* (i.e. dynamic assessment tasks are constructed for teaching and assessment of cognitive changes, rather than for measuring the individual's status relative to his or her peers).
2. Shift from *end product to process orientation* (as is reflected in the focus given to the changes in the child's performance and specific cognitive and non-intellective factors that affect the child's functioning. Dynamic assessment involves asking questions such as "how" and "why" rather than "what" and "how much").
3. Shift in the *context of the assessment situation* (i.e. interactive nature of the testing situation)
4. Shift in the *interpretation of the results* (i.e. based mainly on qualitative aspects of the child's performance).

Linked to this has been the shift from viewing "intelligence as 'crystallized'", largely genetically determined and "fixed", to "intelligence as 'fluid'", which can, when provided with the appropriate learning opportunities and mediation, be modified. Differently put, the underlying assumption of dynamic assessment is that all learners are capable of some degree of learning (change/modifiability). This contrasts with the underlying assumption of standardised psychometric testing that the learning ability of most individuals is inherently stable. Research with dynamic assessment has demonstrated that determination of the current levels of independent functioning of learners is far from a perfect predictor of their ability to respond to intervention (www.dynamicassessment.com). For a more comprehensive overview of some of the theories on the structure of intellectual abilities (including Spearman, Vernon, Thurstone, Guildford and Cattell, Eysenck, Das and Naglieri, Sternberg, Goleman and Gardner), see Owen (1998), Benjamin (2000), Foxcroft and Roodt (2005), Sternberg (2000, 1997a, 1997b, 1984); Neisser et al. (1996) and Benjamin (2000) and Carlson and Wiedl (2000).

Relating to debates in the field regarding a "single definition of intelligence", Neisser et al. (1996) notes that although "considerable clarity has been achieved in some areas, no such conceptualization has yet answered all the important questions and none commands universal assent" (p. 77). Furthermore, Neisser et al. (1996) assert that current theories of intelligence (such as the psychometric approach, multiple forms of intelligence, cultural variation, developmental progression and biological approaches) illustrate that there are many types of intelligence and that traditional psychometric tests capture only a select few of them (Murphy & Maree, 2006). Apart from the fact that different types of psychometric tests exist for the sole purpose of investigating

specific aspects of intelligence in narrowly confined contexts, the psychometric school has also been at the receiving end of legitimate criticism (Daniel, 1997). This is explained further by Vygotsky (date of publication unknown, cited in Benjamin, 2008):

> If a child were brought for a consultation with the complaint that his mental development is inadequate ... that he thinks, understands and remembers poorly and the psychologist offers a diagnosis of a "low level of mental development", nothing is explained and furthermore the psychologist is not able to provide any practical assistance.

With this in mind, Campbell and Carlson (1995, cited in Murphy & Maree, 2006) mention that criticisms levelled at psychometric testing include 1) issues regarding cultural bias against testees not accustomed to experiences that are taken for granted in test situations; 2) the fact that psychometric tests assess current functioning based on what has been learnt and not on what can be learnt (i.e. overemphasis on the products, rather than on the processes of learning and cognitive functioning); and 3) the static nature of the scores that are yielded by psychometric tests. Furthermore, Elliot (2003) notes that criticism has also been directed at the limited relationship between scores and instructional practices and its inability to guide clinicians in deriving specific interventions for educational difficulties. In addition, psychometric tests do not relate to non-intellective factors, which can influence an individual's cognitive performance. Researchers (such as Elliot, 2000 and Tzuriel, 2001) argue that non-intellective factors, such as intrinsic motivation, need for mastery, locus of control, anxiety, frustration tolerance, self confidence and accessibility to mediation are no less important in determining individuals' intellectual achievements than are the "pure" cognitive factors. For a more in-depth discussion on this, see Elliot (2000) and Tzuriel (2001).

The aforementioned criticisms raise the question of the suitability of traditional or conventional psychometric tests in educational contexts. Dynamic assessment represents an approach that seeks to overcome many of the above-mentioned difficulties.

3.3 DYNAMIC ASSESSMENT: BASIC CONCEPTS AND PREMISES

3.3.1 Dynamic assessment defined

"No single definition of dynamic assessment exists" (Caffrey, Fuchs & Fuchs, 2008, p. 257). However, it can be broadly understood as a heterogeneous range of interactive approaches to conducting assessments within the domains of psychology, speech and language, or education, but which focuses on the ability of the learner to respond to intervention (www.dynamicassessment.com; Elliot, 2003). Instruction and feedback are built into the assessment

process and are differentiated on the basis of an individual's performance (Elliot, 2003, pp. 15-16). According to Lidz and Elliot (2000), the major difficulty in discussing dynamic assessment or learning potential assessment is that it is an umbrella term that encompasses a variety of theories, methodologies, functions and goals. What is more, is that "behind this common ground lies much disagreement between leading proponents about core constructs, purposes, methodologies and implications" (Sternberg & Grigorenko, 2002, pp.1-2).

Tzuriel (2001) states that dynamic assessment refers to an assessment of thinking, perception, learning and problem solving by an active teaching process aimed at modifying cognitive functioning. It is conceived as "a holistic assessment approach that permits observation of individuals on cognitive, affective and behavioural levels as well as the interrelation among these levels" (Tzuriel, 2001, p. 4). Dynamic assessment is different from other theories in that assumptions about limited capacities are kept to a minimum. It emphasises the strengths of individuals and their potential to benefit from instruction (Gamlin, 1996 cited in Benjamin, 2008).

3.3.2 Primary characteristics and fundamental assumptions of dynamic assessment

"Stripped to the core, dynamic assessment is a theory of learning, a theory about how individuals acquire and express knowledge" (Gamlin, 1996 cited in Benjamin, 2008). There are variations on several dimensions of the dynamic assessment model. However, there are several salient characteristics that can be identified (www.dynamicassessment.com):

- *The assessor actively intervenes during the course of the assessment with the learner with the goal of intentionally inducing changes in the learner's current level of independent functioning.*
- *The assessment focuses on the learner's processes of problem solving, including those that promote, as well as obstruct successful learning.*
- *The most unique information from the assessment is information about the learner's responsiveness to intervention.*
- *The assessment also provides information about what interventions successfully promote change in the learner (connecting assessment with intervention).*
- *The assessment is most often administered in a pretest-intervention-posttest format.*
- *The assessment is most useful when used for individual diagnosis, but can also be used for screening of classroom size groups.*

Furthermore, Haywood and Lidz (2007, p. 7) mention that there are fundamental assumptions that appear to underlie virtually all approaches to dynamic assessment. These include the following:

- *Some abilities that are important for learning (in particular) are not assessed by normative, standardised intelligence tests.*
- *Observing new learning is more useful than cataloguing (presumed) products of old learning. History is necessary, but not sufficient.*
- *Teaching within the test provides a useful way of assessing potential as opposed to performance.*
- *All people typically function at less than their intellectual capacity.*
- *Many conditions that do not reflect intellectual potential can and do interfere with one's expression of intelligence.*

3.3.3 The Clinically oriented dynamic assessment (CODA) and research oriented dynamic assessment (RODA) continuum

As a result of the paradigm shifts discussed previously, dynamic assessment has evolved into two branches of study, namely clinically oriented dynamic assessment (CODA) and research oriented dynamic assessment (RODA) (Caffrey, Fuchs & Fuchs, 2008, p. 255). CODA began as an educational treatment to remediate cognitive deficiencies presumed to cause learning problems over a period (usually several sessions). Its best-known operationalization is Feuerstein's *Learning Potential Assessment Device* (LPAD). RODA, on the other hand, originated as an assessment tool. It typically involves a standardised assessment during which the examiner guides a student's learning in a single session. In RODA, the time required for the student to reach mastery, or the necessary level of instructional explicitness to advance the student, serves as an index of the student's learning potential. Researchers and practitioners have used this form of dynamic assessment to identify students who may require more intensive intervention and to place them in settings where such intervention can be implemented (Caffrey, Fuchs & Fuchs, 2008; Elliot, 2000). Its well-known operationalizations include the approaches developed by Budoff, Carlson and Wiedl, Sternberg and Grigorenko, Guthke and Swanson.

One of the main purposes of CODA is to "remediate" deficient cognitive processes that appear to contribute to learning problems. However, the procedures of clinically-oriented dynamic assessment are generally non-standardised and require the examiner's insight and expertise to assess learning problems and adapt intervention. Also, the extant literature does not typically report on the reliability and validity of CODA measures. This stems partly from a deliberate rejection of standardised procedures by some researchers (e.g. Feuerstein; Tzuriel; Lidz). Many of the advocates of CODA believe standardization contradicts its spirit and theoretical orientation (e.g. Feuerstein, 1979). A standardised approach, they say, would fail to provide truly individualised intervention in

response to student failure (Caffrey, Fuchs & Fuchs, 2008; Elliot, 2000). Lidz (1992a) notes that those dynamic approaches that appear most able to meet scientific requirements tend to have less utility for diagnosis and intervention. By contrast, the main purpose of RODA is to attempt to address issues of reliability and validity in dynamic assessment. Proponents of RODA believe that standardization and technical adequacy are necessary to make it a worthwhile tool for research and practice. These two views of standardization and dynamic assessment are also reflected in the nature of feedback offered (Caffrey, Fuchs & Fuchs, 2008, p. 255).

In CODA, assessors tend to frequently change how they teach/intervene/mediate to determine the type of intervention with which the student is most successful. In RODA, examiners typically change how much they teach and the level of explicitness of their teaching rather than the intervention. So, in essence, practitioners of CODA use an ever-changing process to maximize student achievement, whereas those using RODA attempt to assess student achievement in response to a more standardised intervention (Caffrey, Fuchs & Fuchs, 2008, pp. 255-256) thereby seeking to "quantify learning potential" (Elliot, 2000b, p. 716).

In terms of test development, CODA involves relatively little time to develop because scripted protocols are rarely developed. Insight and expertise are essential, and student responsiveness to instruction is relatively dependent on the specific educator/mediator providing the help. Conversely, RODA requires a laborious process of protocol development, because the protocols must be standardised (and possibly based on norms) for the target population. At the same time, the demand for practitioner insight and expertise is less – because procedures are standardised, practitioners can be trained in about the time it takes to train examiners in traditional testing (Caffrey, Fuchs & Fuchs, 2008).

The relative merits of CODA and RODA continue to split advocates of dynamic assessment (Elliot, 2003). As Girgorenko and Sternberg (1998) note, research psychologists tend to be concerned with the measurement of change, while applied psychologists are more interested in the promotion of change. For the CODA group, "assessment is most effective when it provides clinical insights that can inform subsequent intervention" (Elliot, 2000b, p. 716). To conclude, Elliot (2000b) states that "while evaluations of dynamic approaches that are based upon strict psychometric criteria (e.g. Sternberg & Grigorenko, 2002) provide a continuing challenge to those who advocate their use, practitioners need to balance psychometric weaknesses against clinical utility in their choice of measures" (Elliot, 2000b, p. 716). This highlights the fact that the perceived functions of dynamic assessment are many and reflect the differing aims of practitioners and researchers (Elliot, 2000b).

3.4 A CRITIQUE OF THE DYNAMIC ASSESSMENT APPROACH

Even though the efficacy of dynamic assessment has been proven by many researchers in the last two decades (such as Brown, Budoff, Campione, Carlson, Elliot, Feuerstein, Guthke, Hamers, Haywood, Hessels, Kaniel, Lidz, Resing, Sternberg, Swanson, Tzuriel, Vygotsky, Wiedl and many others), dynamic assessment still has to prove itself as an efficient method of assessment (Tzuriel, 2001). Although there is ample evidence that dynamic assessment theories and practice have come to the forefront of people's awareness and have become more popular than in the past, there are still some unresolved dilemmas that should be countered and dealt with (Tzuriel, 2001). Jitendra and Kameenui (1993) have highlighted some of the dilemmas in the field of dynamic assessment, namely construct fuzziness, procedural spuriousness, impinging on issues of reliability, instrument inadequacy, impinging on issues of validity and labour intensiveness (an all-pervasive negative cost factor in dynamic assessment research) (Murphy & Maree, 2006). The following section will provide a brief overview of these challenges and conclude with some suggestions on how these may be countered or dealt with.

3.4.1 The "fuzzy identity" of dynamic assessment

One of the factors that seem to add to the construct fuzziness and vagueness is that dynamic assessment encompasses a variety of approaches and procedures, each of which describes and applies it in different ways (Elliot, 2003; Jitendra & Kameenui, 1993). Elaborating on this, Alba and Hasher (1983 cited in Jitendra & Kameenui, 1993) argue that "it is difficult to evaluate a set of partially overlapping assumptions spread across years of research, a sizeable number of paradigms and the research of a large number of investigators". Furthermore, Kaniel (2001) asserts that the fuzzy identity of dynamic assessment is manifested in three areas, namely 1) conceptual confusion, 2) approaches that are not differentiated in an essential way, and 3) failure to produce an effective intervention programme from the assessment.

According to Kaniel (2001), the identity of dynamic assessment has become indistinct, and the vagueness increases as one proceeds towards implementation. Dynamic assessors are particularly interested in constructs such as intelligence, learning potential, motivation and cognitive modifiability (Carlson & Wiedl, 2000). Unfortunately these constructs, like "many constructs in the social sciences in general and psychology in particular are problematic as a variety of operational definitions are often used for the same or very similar theoretical construct" (Carlson & Wiedl, 2000, p. 706). Carlson and Wiedl (2000) remark further that, although ambiguity can be reduced when theoretical constructs are operationally defined, measurement alone leads to its own ambiguities of explanation and prediction if it is dependent on the theoretical context. This makes it

difficult to draw similar conclusions about what the construct is and the specific techniques employed (Jitendra & Kameenui, 1993). The above-mentioned concerns also impinge on issues of reliability and validity.

3.4.2 Reliability and validity in dynamic assessment

"If a measure cannot be justified for its practical utility, it becomes irrelevant; if it lacks scientific viability, it is useless" (Carlson & Wiedl, 2000, p. 708). Criticism against dynamic assessment is often related to issues of reliability and especially validity (Grigorenko & Sternberg, 1998). According to Murphy and Maree (2006), these issues are contentious, as they are "not always considered as forming part of the paradigm from which dynamic assessment springs" (p. 175). The central question that remains regarding tests of learning potential relates to the relatively few empirical studies that support the predictive and construct validity of dynamic assessment procedures (Benjamin, 2000). Tzuriel (2001) also states that "more research is needed to verify the reliability and validity of judgments made with dynamic assessment procedures" (p. 214). Gain scores (the difference between the pretest and post-test scores) may be unreliable unless special efforts are made to optimise the reliability of pre- and posttest measures and to maximize the size and variance of different scores (Benjamin, 2000). Furthermore, the validation of dynamic assessment procedures is much more complex than that of static procedures, as dynamic assessment claims to have a broader scope of goals. These include the assessment of initial performance, deficient cognitive functions, type and amount of mediation, non-intellective factors, as well as different parameters of modifiability (Tzuriel, 2001, p. 215). There is also a difficulty in the interpretability of a difference score as its reliability is inversely related to the correlation between pre-and posttest scores (Taylor, 1994).

However, in a recent study, Caffrey, Fuchs and Fuchs (2008) found that results indicated superior predictive validity for dynamic assessment when feedback is not contingent on student response, when applied to students with disabilities rather than at-risk or typically achieving students and when independent dynamic assessment and criterion-referenced tests were used as outcomes instead of norm-referenced tests and teacher judgment. Carlson and Wiedl (2000) also present a conceptual framework for validating dynamic assessment approaches. They focus mainly on construct validation and show how their model of dynamic assessment and intelligence, as well as the application of their dynamic assessment procedures in clinical settings can be used for this purpose. **Appendix G** includes a graphical illustration of this conceptual framework originally developed by Beretvas (in Carlson & Wiedl, 2000). For further reading, the reader is referred to Weingartz, Wiedl and Watzke (2008) and Karpov (2008).

3.4.3 Labour intensiveness, time constraints, cost and training

The most often cited criticisms directed at dynamic assessment relate to the large amounts of time required to train assessors, to administer the assessment as well as the costs involved in doing so (Murphy & Maree, 2006; Kaniel, 2001; Coosner, 1999; Green, 1996; Boeyens, 1989; Vye, Delclos & Bransford, 1987). As dynamic assessment procedures include materials that involve broad classes of skills, the efficient use and interpretation of tests requires detailed training and highly experienced assessors (Green, 1996; Jitendra & Kameenui, 1993). In addition, Lidz (1992b) found that very few university lecturers in the field of school psychology were teaching their students about dynamic assessment. Reasons for this were that lecturers seemed to feel insecure about their knowledge base and level of skill development in dynamic assessment. Some also had serious concerns about the technical adequacy of the model. Lidz (1992b) states that, until this is remediated, lecturers are unlikely to prepare their students in dynamic assessment. According to Lidz (1992b), there seems to be a stalemate situation. More research in dynamic assessment is needed, but there are currently very few lecturers/trainers that know enough about the models and procedures to conduct or stimulate this research.

3.5 GUIDELINES FOR CONSOLIDATING THE IDENTITY OF DYNAMIC ASSESSMENT

As has been noted previously, one of the major challenges is the discrepancy between the theoretical and ideological identity of dynamic assessors and the need to provide practical solutions for groups and individuals. To deal with this, Kaniel (2001) suggests that psychologists define and justify their assessment goals. This refers them back to their ideological roots, which guide their behaviour in difficult situations and give meaning to their work. He further contends that the solution to the fuzziness of the identity of dynamic assessment lies in one of the main recommendations offered by Grigorenko and Sternberg (1998): "The macro requirements are related to theoretical issues of defining dynamic testing as an independent tradition in the psychology of testing with its own goals, methods and applied techniques" (p. 105). Kaniel (2001) explains the significance of the latter and its implication for psychologists in the following excerpt:

> To confer a clear identity on dynamic assessment, we must put the era of cognitive engineering behind us, revisit philosophical roots and commit ourselves to an ideology which reflects a world-view which is not restricted to the area of assessment but, rather, applies to all psychologists' endeavours. Such an ideology would distil ideas, beliefs, values and attitudes, to create a basis and guidelines for diagnostic and therapeutic procedures. As in medicine, it is preferable to identify the dynamic assessor rather than dynamic assessment, and to emphasize the essence of the act rather than the instruments

> being used. This places the focus firmly on the goals and justifications of assessors, and not on the instruments and procedures (including standard ones) at their disposal.

To achieve this, Kaniel (2001) proposes the idea of the "whole-person dynamic assessor". For further elaboration on the essence, beliefs and psychological principles that should guide a "whole-person dynamic assessor", the reader is referred to Kaniel (2001, 2000), as it is beyond the scope of this chapter to provide an in-depth discussion of it here.

With its focus on applicability, the validation process of dynamic assessment will require a clear and scientifically defensible justification for the constructs developed, testing procedures employed and assessment devices used. It also will require evidence demonstrating its practical utility. This is a particularly daunting and encompassing task, "requiring a blend of basic and applied research and development approaches" (Carlson & Wiedl, 2000, p. 708). Therefore, Carlson and Wiedl (2000) state that it is important to realize that, because there is a science of dynamic assessment, there is also a technology of dynamic assessment – and validation approaches must take this into account.

Linked to issues of labour intensiveness, many educational psychologists, especially those in South Africa, "can ill afford a costly and time-consuming endeavour in assessment". However, this need not be the case. This has been evidenced by the studies of researchers such as Coosner (1999), De Beer (2000) and Schlatter and Büchel (2000), whose approaches/procedures seek to curb costs and timing (Murphy & Maree, 2006, pp. 176-177). Linked to this, Tzuriel (2001) notes that proponents of dynamic assessment frequently mention the argument that society at large and the individual in particular benefit from dynamic assessment in the long run (and often in the short run). He argues that a short, instant assessment might be cheaper in the short run but superficial, wasteful and less effective in the long run:

> Dynamic assessment may be lengthier and more expensive, but provides in-depth and qualitatively better results, which ensure accurate future intervention procedures. Psychologists, educators and policy-makers should be convinced first that the information derived from dynamic assessment is worth the investment required to get it, and that the information acquired will then be used in a way that will have an impact on specific learning strategies and academic achievements (p. 213).

It then seems that the challenge of dynamic assessment is to be certain that the information derived is worth the investment required to get it and that the information is then used in a way that results in educational benefits for the child who was assessed (Tzuriel, 2001).

In response to issues related to training in dynamic assessment, Lidz (1992b) suggests that "those who do know need to find ways to both train interested trainers to a secure level of knowledge and practice and to find ways of promoting research themselves" (p. 330). In a more recent study,

Haywood and Lidz (2005) conducted an international survey of dynamic assessment trainers. They found that among the dilemmas and special challenges of training new, dynamic assessors is the need to help them "unlearn" many of the central lessons of traditional approaches. The primary purpose of the assessment is no longer limited to classification, but focuses primarily on intervention. Owing to these challenges, as well as the need for an intensive and prolonged learning experience, the optimal preparation for dynamic assessment would be at the pre-service rather than in-service level. Haywood and Lidz (2005) argue that it would be important to help new learners develop these techniques early so that there is no need to "unlearn" (Haywood & Lidz, 2005, pp. 194-195). In the light of this, the next section will consider the potential and relevance of dynamic assessment and the contribution it can make to the practice of educational psychologists.

3.6 THE POTENTIAL AND RELEVANCE OF DYNAMIC ASSESSMENT FOR EDUCATIONAL PSYCHOLOGISTS

Dynamic assessment procedures are increasingly coming to the notice of mainstream educational psychologists. However, despite their inherent attraction, they remain relatively underused and there continues to be little evidence to suggest that dynamic assessment approaches are widely employed (Elliot, 2000a; Elliot, 2000b; Haney & Evans, 1999). Stringer, Elliot and Lauchlan (1997) argue that the reasons for the as yet unrealized potential of dynamic assessment are numerous (and predictably, interacting). Elliot (1993 in Elliot, 2000) suggests four possible explanations for the limited use of dynamic assessment approaches by educational psychologists, which were explained in chapter 1. From this, it is evident that the potential of dynamic assessment "as a tool for everyday practice has yet to be realized" (Elliot, 2000, p. 713).

Linked to this, Stringer, Elliot and Lauchlan (1997) suggest that dynamic assessment represents a significant psychological assessment approach, capable of empowering educational psychologists to fulfil distinctive role as applied psychologists. In combining the theory and practice of dynamic assessment, they argue that educational psychologists will be able to answer the question "Why?" in a way rarely possible through psychometrics. Tzuriel (2001) asserts that dynamic assessment especially has much to offer educational psychologists who want to understand what is limiting an individual's performance and what may be helpful for facilitating higher levels of performance. **Figure 3.1** below shows the various levels dimensions in the context of educational psychology, according to the bio-ecological/ecosystemic model, where the potential of dynamic assessment could be realized (Swart & Pettipher, 2005).

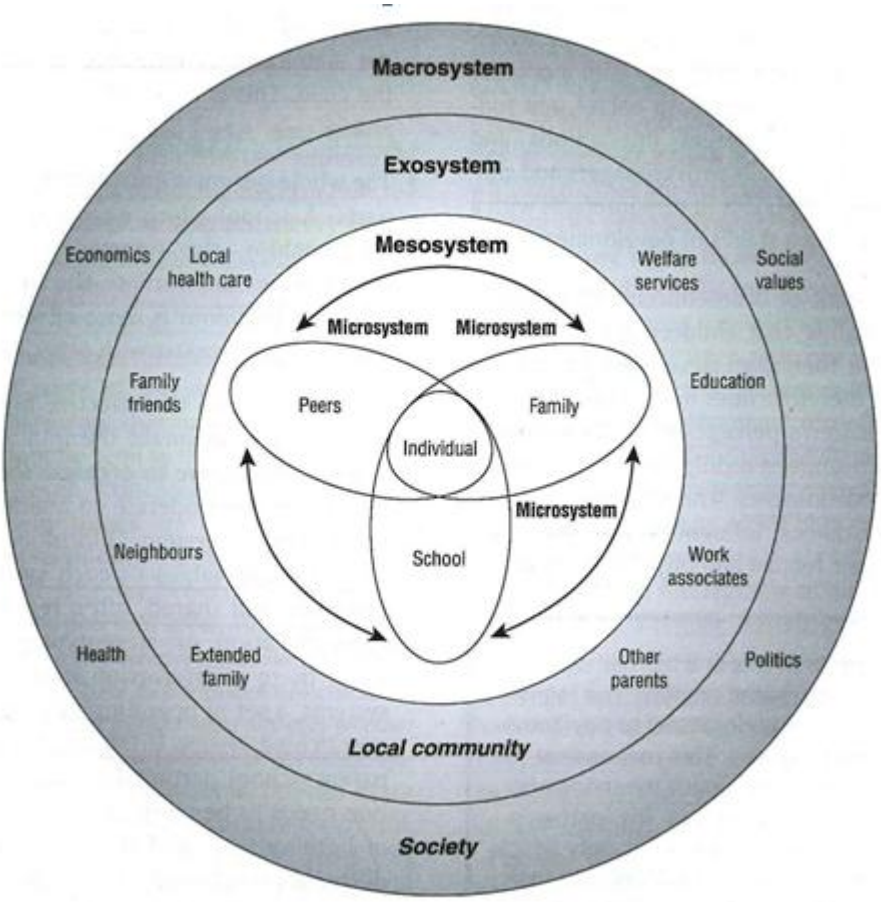

Figure 3.1: Ecosystemic model layout

Source: Swart & Pettipher, 2005, p. 11

According to Elliot (2000a), dynamic assessment has been advocated as a valuable tool for fulfilling a variety of different functions to assist an educational psychologist when administering assessments. In addition, he notes that it is important for educational psychologists to consider whether these functions represent or should represent a key concern, as well as the extent to which dynamic assessment has a particular contribution to offer in each respect. These functions include the following (p. 62):

- Identifying specific cognitive deficiencies that delimit the child's functioning (micro-level).
- Highlighting the child's employment of cognitive strengths and weaknesses (micro-level).
- Examining metacognitive functioning (micro-level).
- Making judgments about the person's potential (micro-level).
- Making judgments about the person's modifiability; in other words, how responsive the person is to intervention (micro-level).
- Pointing to those instructional methods that might prove most useful to the individual (meso-level).

- Improving the person's mental efficiency (meso-level).
- Assisting in evaluating the effectiveness of treatments in a given population (exo- and macro-level).
- Estimating the likely impact of cognitive training programmes upon intellectual performance (meso- and exo-level).
- Assisting in understanding the impact of non-intellective factors (for instance, motivation and locus of control) upon learning (meso-level).

With the above in mind, Tzuriel (2001) argues that "what is important is not so much what children know or do, but rather how they learn" (p. 214). On a meso-level, dynamic assessment is seen as having significant value for work with teachers (Elliot, 2000a), especially in designing and implementing specific intervention programmes to suit the unique needs of the individual learner. This should be seen as a collaborative process between the teacher and the educational psychologist, where the educational psychologist adopts more of a consultative role. Elliot (2000b) argues that the notion of modifiability - a core construct in dynamic assessment - is important, particularly as a means to demonstrate that a particular individual is capable of much more than is currently apparent. In his opinion, therefore, prediction of subsequent performance should not be the educational psychologist's ultimate concern. Instead, the examination of an individual's capacity for change by means of dynamic assessment should enable educational psychologists to gain greater understanding about how the child may learn best, why errors are made, how current functioning can be improved and how transfer can be enhanced (Hamers & Resing, 1993). In other words, the examination of modifiability should be related directly to predicting how well the child is likely to respond to various forms of intervention (Day, Engelhardt, Maxwell & Bolig, 1997).

As it is often difficult in practice to differentiate between persons who manifest low functioning because of cultural difference and those who have experienced cultural deprivation, dynamic assessment offers an alternative which, according to Tzuriel (2001), "is superior over the static approach not only for its differential diagnostic value, but also for its potential prescriptive remediation of deficiencies and enhancement of learning processes" (p. 213). Furthermore, on a broader socio-historical scale, dynamic assessment can open opportunities for investigating cognitive change processes as a function of specific mediational procedures, implementation of learning contexts and use of mental operations across cultures (Tzuriel, 2001, p. 214). Elliot (2000b) asserts further that:

> In considering the present and potential value of dynamic assessment for professional work in educational contexts, educational psychologists need to have a clear view of

> exactly what questions psychological assessment is, and should be, setting out to answer. Unless we question seriously what practitioner psychologists are currently doing, the development of alternative and potentially more productive assessment tools may be greatly hindered (p. 716).

The issue for educational psychologists is "to be clear about what information they need to address referral issues to understand what information each of their tools provides and to select tools that provide the information to respond to the assessment questions and decisions to be made" (Lidz, 2003, p. 113). As has been noted previously, dynamic assessment can be a powerful tool for observing an individual's cognitive processing, for exploring circumstances in which learning occurs more or less effectively and for selecting and determining the range and intensity of intervention necessary to bring about improved learning. Given its unique ability to gather this type of information, dynamic assessment has the potential for linking directly to the development and evaluation of intervention programmes in a manner that most traditional forms of assessment cannot (Greenberg, 2000). However, implementing a process that can lead to this ideal is challenging and complex.

Realizing the potential of dynamic assessment in professional practice

According to Greenberg (2000), at least four types of understanding are necessary to integrate dynamic assessment successfully into professional practice. First, it is important to study the theories and research related to several models and to select an approach most compatible with one's own beliefs about learning. Second, it is necessary to learn how to use specific assessment devices. The third requirement is to reflect on factors essential to individualizing dynamic assessment in specific situations by finding ways to get inside professional practice, such as reading case studies and experimenting on one's own. Given opportunity and motivation, expertise in these three areas develops readily. A fourth type of understanding, namely how to link dynamic assessment to the development and evaluation of classroom intervention, is more complex and challenging, because it is dependent upon systemic factors beyond the individual, for instance professional development opportunities, collaboration among a large group of interdisciplinary professionals who recognise that dynamic assessment addresses needs within the systems and who work together to implement its use (Greenberg, 2000).

Greenberg (2000) further argues that the following components are important in the process of linking dynamic assessment and intervention: exploring referral questions, planning assessment, conducting assessment, sharing results, designing interventions, monitoring intervention implementation, providing ongoing support and professional development. According to her, this

process has relevance, especially as it can aid educational psychologists in the implementation of dynamic assessment. These components are shown in **Figure 3.2**.

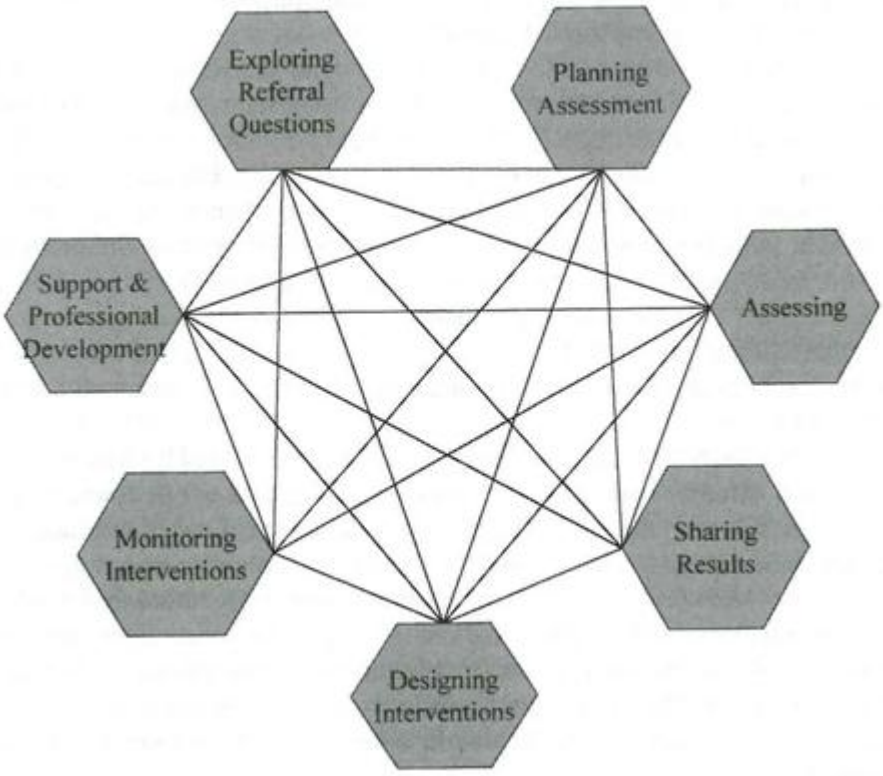

Figure 3.2: The interaction of nonlinear components as a party of a collaborative, systems oriented process for linking dynamic assessment and intervention

Source: Greenberg, 2000, p. 509.

Sternberg and Grigorenko (1998) note that, in the future, dynamic assessment will prove to be a valuable resource to the psychological profession, as it has suggested interesting paradigms as well as promising findings. However, implementing a process that can lead to this ideal is challenging and complex (Greenberg, 2000, p. 489). To make dynamic assessment studies more compelling, however, it is required that studies be conducted with larger populations to "validate dynamic assessment against educational and professional criteria and to replicate the findings beyond different laboratories and specific methodologies" (Tzuriel, 2001, p. 217).

Elliot (2000a; 2000b) warns that educational psychologists should guard against the notion that dynamic assessment is primarily a superior tool for undertaking similar functions as I.Q. tests (such as, making global predictions about future performance, separating those with potential from those who are seen as incapable of learning, placing the latter in special schools). The implication of this is that "a paradigmatic shift will not have occurred and the true potential of dynamic assessment will not be revealed" (Elliot, 2000b, p. 734). In the light of this, Elliot (2000a) argues that instead of

trying to develop improved tools to undertake the educational psychologist's traditional functions (classification, prediction, selection), we should seek a paradigm shift in which dynamic approaches are utilized to assist psychologists and teachers to collaborate in devising classroom-based educational interventions (Elliot, 2003).

Woods and Farrell (2006) note that previous research and theory on educational psychologists' psychological assessment indicates that a variety of methods is likely to be used in combination to suit different purposes. They state that educational psychologists may experience conflicting pressures from academia, policy development and custom-and-practice that affect their decisions about whether or not to use psychometric cognitive assessments. Furthermore, they argue that local and national "paradigm" shifts may promote significant changes in psychological assessment practice over time, and the emergence of consultative approaches within educational psychology may have had a significant effect upon educational psychologists' role in direct psychological assessment. "It is thus particularly important at this time for educational psychologists to be clear about the process, range of methods and distinctive contribution of their assessment practice if they aim for specific elements of child assessment practice to be 'owned' by themselves rather than other professional groups" (Woods & Farrell, 2006, p. 392).

Burden (1996) argues that empowerment should be considered a function of assessment. He notes that, in order for psychologists to hold on to the ideal of helping others to help themselves, it is imperative for educational psychology services to make explicit their philosophies against which they wish their actions to be judged. In carrying out their role as educational psychologists, they can: 1) do things ***to*** children, 2) do things ***for*** children, or 3) do things ***with*** children. Burden points out psychologists usually do the first of the above functions and often justify this in terms of the second. However, they infrequently perform the third. The interactional and learning-based nature of dynamic assessment should accordingly invoke a humane and caring approach towards learners; that is, doing things *with* children. This is in entirely different to the static testing approach, where the tester is required to be fair (objective and neutral) and where all children (or persons) are treated alike. Benjamin (2000) notes that "as the test environment requires the tester to do something to the testee, the learner is prevented from contributing meaningfully during the assessment. In this way, the value of the learner and his or her individual differences is negated" (p. 78). He further argues that the introduction of a humane assessment philosophy, which is congruent with the new South African education policy with its emphasis on individual rights and empowerment, should assist with the development of human potential.

In view of this, Elliot (2000) states that "dynamic assessment could function as a catalyst for professional transformation rather than merely becoming a superior tool for undertaking traditional selection-based tasks. He notes that unless it is associated with a dominant mode of educational psychology practice in which greater emphasis is placed upon informing intervention than classification and selection, it is unlikely that most clinicians will consider it sufficiently worthwhile to move away from existing assessment practices. "As with learners, dynamic assessment's potential is unlikely to be realized unless the environment in which it operates is transformed" (p. 735).

Finally, Stringer, Elliot and Lauchlan (1997) emphasised the importance of educational psychologists having vested interest in dynamic assessment:

> As a community of psychologists, if there is a shared belief in the role of the educational psychologist as an applied psychologist, a shared belief in the value of investigating the processes of learning, rather than stopping short at the products of learning and a shared belief in the value of dynamic assessment, then perhaps there could be a shared responsibility to overcome some of the obstacles that appear to stand in the way of establishing dynamic assessment as being as much an essential part of the educational psychologist's repertoire of knowledge and skills as psychometrics and other standardised assessment approaches (p. 239).

3.7 CONCLUSION

This chapter focused specifically on dynamic assessment in the field of educational psychology. The reader was introduced to paradigm shifts in educational psychology and how this influences our conception and understanding of intelligence and consequently assessment. It highlighted the concerns raised in the literature about conventional standardized testing and shed some light on a relatively new, alternative approach, namely dynamic assessment. The major differences between the two assessment approaches were identified, explained and clarified. The characteristics, assumptions, purposes and principles central to dynamic assessment were also explained in detail. Attention was drawn to the marked differences between research-oriented dynamic assessment (RODA) and clinically oriented dynamic assessment (CODA). The discussion then turned to a critique of the dynamic assessment approach, which was related to issues of construct fuzziness, validity and reliability, labour intensiveness and training. This was followed by guidelines for consolidating the identity of dynamic assessment. In the final section, an overview of the literature pertaining to the relevance and potential of dynamic assessment for educational psychologists on various levels of the bio-ecological model, as well as guidelines for its realization in educational psychologists' professional practice, was provided.

Based on the understanding that dynamic assessment has relevance and potential for the practice of educational psychologists, but remains essentially underused, a qualitative, interpretative approach has been employed. This approach is outlined and explained in detail in Chapter 4, the methodology chapter of this thesis.

CHAPTER 4

RESEARCH DESIGN AND - METHODOLOGY

4.1 INTRODUCTION

This study involved a detailed examination of educational psychologists' views on the relevance of dynamic assessment for their practice. The primary focus was to understand the relevance of dynamic assessment for educational psychology practices in the South African context from the participants' point of view. This was achieved through a process of interpretive activity (Smith & Osborn, 2008). This chapter is devoted to describing and explaining this process of "interpretive activity". It discusses the research paradigm, design and methodology selected for this study in detail. It also focuses on the selection of participants and the methods used to collect, analyse and verify the data. In the final section, ethical considerations relevant to this study are also highlighted.

4.2 RESEARCH PARADIGM

The net that contains the researcher's epistemological, ontological and methodological premises may be termed a paradigm or an interpretive framework – "a basic set of beliefs that guides action" (Guba, 1990 in Denzin & Lincoln, 2003, p. 33). The paradigm affects the nature of the research problem and the way in which the problem is explored. Therefore, it also plays a central role in the research design.

The research paradigm must be identified before the research design and analytical processes can be selected (Grbich, 2007). This study is embedded in an interpretive/constructivist research paradigm because of its emphasis on experience and interpretation. The interpretive perspective avows that human interaction is inherently meaningful (Schwandt, 2000). Interpretive research is fundamentally concerned with meaning and it seeks to understand participants' definitions and understanding of situations.

The interpretive/constructivist paradigm does not concern itself with the search for broadly applicable laws and rules, but rather seeks to produce descriptive analyses that emphasise deep, interpretive understanding of social phenomena. As the interpretive/constructivist paradigm maintains that reality is created through the process of social construction (Guba & Lincoln in

Mertens & McLaughlin, 2004), the same phenomenon (i.e. dynamic assessment) will have different meanings to different people (Mertens & McLaughlin, 2004). Interpretive research attempts to understand phenomena through the meanings that people assign to them (Henning, Van Rensburg & Smit, 2004, p. 21). Therefore, the focus of this study was to understand individual participants' experiences of and views on the relevance of dynamic assessment for their practice, from the viewpoint of their unique contexts and backgrounds.

Since the interpretive/constructivist paradigm works within multiple constructed realities, it is important to note that the research findings are influenced by both the researcher and the participants. Through a process of interpretive activity, the researcher and participants interact with and shape each other and co-create understandings (Denzin & Lincoln, 2003). In this study, the researcher tried to make sense of the constructions held by educational psychologists in specific contexts through a process of interpretive understanding (Mertens, 2005). Schwandt (2000) states that the process of interpretive understanding has the following features:

- Human action is meaningful.
- There is an ethical commitment to show respect for and fidelity to the everyday, inter-subjective world or life world of people.
- It emphasises that human subjectivity contributes to knowledge without sacrificing the objectivity of knowledge – it is thus possible to understand the subjective meaning of action in an objective way.

In keeping with the principles of the interpretive/constructivist research, which emphasises the internal reality of subjective experience and the principles of empathic understanding and listening, the researcher adopted a naturalistic, interactional, interpretive and qualitative methodology (Lincoln & Guba, 2005; Terre Blanche & Durrheim, 1999). This is discussed in more depth in the sections that follow.

Babbie and Mouton (2001) assert that the aim of interpretive/constructivist research is to describe and understand, rather than to explain or predict human action (Babbie & Mouton, 2001). Using the interpretive/constructivist paradigm, the researcher sought to come to an understanding of the participants' views on the relevance of dynamic assessment for their practice. In exploring the participants' views, the researcher also tried to identify features of dynamic assessment that had the greatest impact on the participants' views. For this purpose, a qualitative research design was selected.

4.3 RESEARCH DESIGN

According to Babbie and Mouton (2001), the research design provides the plan or itinerary according to which the research will be conducted with the goal of reaching the research aims of the study. As this research is embedded in an interpretive/constructivist paradigm and requires in-depth understanding of educational psychologists' views on the relevance of dynamic assessment for their practice, a basic qualitative research design was followed. "Qualitative research implies an emphasis on the qualities and entities and on processes and meanings that are not experimentally examined or measured (if measured at all) in terms of quantity, amount, intensity or frequency" (Denzin & Lincoln, 2003, p. 13). It highlights the socially constructed nature of reality, the intimate relationship between the researcher, the participants and the situational constraints that shape inquiry. It is endlessly creative and interpretive. When doing qualitative research, researchers seek answers to questions that stress how social experience is created and given meaning (Denzin & Lincoln, 2003). Therefore, basic qualitative research involves description, interpretation and understanding of the phenomenon under study (Merriam, 1998). In addition, it can also be regarded as naturalistic, holistic and inductive (Terre Blanche & Durrheim, 1999).

Since qualitative researchers argue that social phenomena are dependent on context, the meaning of whatever it is that the researcher is investigating will depend on the particular situation an individual is in (Terre Blanche & Durrheim, 1999). For this reason, it is important to understand the phenomenon of interest (i.e. dynamic assessment) from the participants' (and not the researcher's) perspectives. According to Merriam (1998), this is often referred to as the *emic*, or insider's perspective, as opposed to the *etic*, or outsider's view. To ensure that an insider's perspective was gained, the researcher employed an inductive research approach. When using an inductive approach to research, real-world situations are studied without manipulation and the researcher sees phenomena as "interrelated wholes rather than split up into discreet predetermined variables" (Terre Blanche & Durrheim, 1999, p. 42). Typically, qualitative research findings are in the form of themes, categories, typologies and concepts that were inductively derived from the data (Merriam, 1998).

Furthermore, in qualitative research, the researcher is the primary instrument for data collection and analysis. Data are mediated through the researcher, rather than through inventories, questionnaires or a computer. The advantage of this is that the researcher is responsive to the "total" context and therefore able to adapt the research techniques to the circumstances. In view of this, Merriam (1998) notes that what is known about the situation can be expanded through sensitivity to

nonverbal aspects. What is more is that data can be processed immediately, clarified and summarised as the study evolves, and more anomalous responses can be explored.

In this study, a basic qualitative research design was employed to enhance our fundamental knowledge of educational psychologists' views on the relevance of dynamic assessment for their practice. It also allowed the researcher to understand and explain the meaning that educational psychologists ascribe to dynamic assessment. In accordance with the principles of qualitative research, the purpose of the present study was to access participants' understandings of dynamic assessment and to build up a picture of their multiple realities as well as the social constructions and processes that underlie and shape their views on dynamic assessment. Finally, the study also proposed to describe the contexts that had an influence on participants' constructions of dynamic assessment.

As generally happens, the interpretive/constructivist paradigm pointed to the use of qualitative research methods in collecting and analysing data. In this study specifically, employing a qualitative orientation was well suited to the research conducted. Qualitative methods specifically enabled the researcher to gain an in-depth understanding of the views, values, actions and concerns of the participants under study.

4.4 RESEARCH METHODOLOGY

Qualitative researchers are interested in understanding the meaning that participants ascribe to a particular phenomenon and believe that rich descriptions of the social context and the phenomenon under study are valuable (Denzin & Lincoln, 2003). For this reason, a naturalistic, interactional and interpretive methodology was employed. The researcher personally conducted in-depth semi-structured interviews with all twelve participants. In-depth semi-structured interviewing was used as a method of data collection to capture the meaning of the participants' words as they spoke about dynamic assessment and shared their knowledge, experiences and views on it. The use of in-depth interviewing further allowed the researcher to note verbal and non-verbal cues that also affected the meaning-making process. After the interviews had been conducted, transcripts were generated, which were then sent to all the participants for member checks (i.e. verification of the content). The data from the interview transcripts were then analysed using a synthesis of content and interpretive analysis, which enabled the researcher to identify and categorize themes as they arose from the data. In keeping with the principles of the interpretivist/constructivist paradigm, terms such as credibility, dependability and confirmability replace the usual positivist criteria of internal and external validity, reliability and objectivity (Denzin & Lincoln, 2003). These terms are discussed in more depth in the section on data verification and trustworthiness. Data verification in this qualitative

study was critical to ensure that the researcher produced findings that were credible to her, the participants and the eventual readers of the study.

4.4.1 Participants

Because this research is embedded in the interpretivist/constructivist paradigm and the researcher wanted to obtain an in-depth understanding of educational psychologists' views on the relevance of dynamic assessment for their practice, purposive sampling was used to recruit twelve participants for the study. Purposive sampling has a variety of different strategies to purposefully select "information-rich cases" that will illuminate the research questions (Patton, 2002, p. 230). Criterion sampling is one such strategy and involves cases based on specific predetermined criteria (Mertens, 2005; Patton, 2002). The predetermined criteria for selecting participants in this study were: a) educational psychologists registered at the Health Professions Council of South Africa, b) working in the Western Cape and c) familiar with and knowledgeable about dynamic assessment and/or received some form of training in it.

According to Patton (2002) and Kelly (2006a), there are no hard and fast rules for sample size in qualitative research, because the sample size depends on the research questions, the purpose of the research and what can be done with the available time and resources. Patton (2002) further argues that the meaning and insights gained from the study depend on the participants (i.e. "information-rich cases") and the researcher's ability to analyse the data, rather than on the sample size. According to Kelly (2006a), a sample of 10 to 20 participants is needed when shorter interviews are conducted (the interviews in this study ranged from 20-55 minutes) or when one is seeking maximum variation. With this in mind, the researcher selected twelve participants to take part in the study. It was quite challenging to find participants who met the selection criteria. They were selected from a list generated on a referral basis of people who had received training in dynamic assessment or who had done research on dynamic assessment and/or cognitive education. The researcher made use of the Med Pages directory and the search engine Google to find the contact details of potential participants. The participants were then contacted telephonically and informed about the study. When they agreed to participate, the researcher sent a letter to each participant that explained all the information regarding the study (see **Appendix H**). Further arrangements (for instance, when and where the interviews would be held) and communication (i.e. member checks and feedback) took place via email correspondence.

As mentioned earlier, it was imperative that all the participants were familiar with dynamic assessment. However, the sample in this study can be described as heterogeneous because male and female participants were included. They were English and Afrikaans speaking and working in

various contexts, including schools, private practice, a youth care centre and the Department of Education. The biographical information of the participants related to this study is shown in **Table 4.4**.

Table 4.1: A Presentation of the Biographical Information of Participants

Participants	Current Age	Gender	Year in which obtained M. Ed. Psych degree	Home language	Workplace	Nature of current work	Nature of past work	Professional development training and fields of interest
P-1	51	M	2006 working 2½ years	E	District Office: Education Department	Special Learning and Education Support Services	Counselling, Educational Specialist, Lecturing, Training, Research	Teacher training & capacity building for school-based teachers, barriers to learning, SIAS roll-out.
P-2	29	F	2005 working 3½ years	E	Private school	Psycho-therapy (individual & systemic), Early child development & learning, Assessment, Management	Psycho-therapy (individual & systemic), early child development & learning, Assessment	Early child development & learning, Assessment
P-3	33	F	2003 working 6 years	E	Private practice	Psycho-therapy, Assessment, Supervision	Worked at a school	Psycho-therapy: Narrative & Solution-Focused; Assessment, Supervision
P-4	45	F	2004 working 5 years	A	Private practice	Assessment, Psycho-therapy, Lecturing	Assessment, Psychotherapy	Assessment, Psycho-therapy, Career Guidance & part-time lecturing

Participants	Current Age	Gender	Year in which obtained M. Ed. Psych degree	Home language	Workplace	Nature of current work	Nature of past work	Professional development training and fields of interest
P-5	35	F	2007 working 1½ years	A	University	Career counselling & development, Assessment, Psycho-therapy, Research	Teaching, Research	Career counselling & development, Research, Positive Psychology
P-6	56	F	2002 working 7 years	E	Private practice; Special school	Crisis Management, Parents: consultation & skills development, Assessment, Psycho-therapy, Career counselling & assessment.	Teaching, Special Education	Special Education, Dynamic assessment, Cognitive Education, Narrative & Solution-Focused therapy, Feuerstein's work
P-7	45	F	2002 working 7 years	E	Private practice; District Office: Education Department - *School*	Assessment, Psycho-therapy, Consultations: families	Teaching, Cognitive Education, Specialized Education	Research, Specialized Education & Disability matters
P-8	67	M	1975; 1982 working 34 years	E	Private practice	Psycho-educational assessment & intervention	Teaching; University: research, lecturing, training	Psycho-educational assessment, Child development, Systems theory
P-9	34	F	2002 working 7 years	A	Private practice, Private school	Assessment, Psychotherapy	Teaching	Psycho-therapy: Play therapy, Ego-state & hypnosis

Participants	Current Age	Gender	Year in which obtained M. Ed. Psych degree	Home language	Workplace	Nature of current work	Nature of past work	Professional development training and fields of interest
P-10	47	M	2004 working 5 years	E	Private practice & District Office, Education Department – *School*	Assessment, Psycho-therapy, Trauma & crisis management	Teaching, Counselling, Research	Psycho-therapy
P-11	46	M	2001 working 8 years	E	District Office, Education Department – *Community/ Youth Care Centre*	Assessment, Systemic intervention, Psycho-therapy, Trauma & crisis management, Programme development, Training	Teaching, Counselling, Research	Research; Personal & professional development in terms of identity, Psycho-therapy: Circle of Courage
P-12	34	F	2007 working 2½ years	E	Private practice	Assessment, Psycho-therapy,	Assessment, Psychotherapy	Psychotherapy

4.4.2 Procedures

Ethical clearance was obtained from the Ethics Committee at the University of Stellenbosch (reference number: 212/2009). Once permission had been granted to proceed with the research, the researcher contacted all twelve participants to inform them about the study. The researcher then scheduled one-and-a-half-hour appointments with participants at a time and place convenient for them. Half an hour was allocated for explaining the research process to participants and for obtaining written informed consent from them (see **Appendix H),** and an hour for conducting the interview.

4.4.3 Method of data collection: Semi-structured interviews

The interpretive/constructivist paradigm accepts that data collection is an interactive process whereby the researcher and the participants are personally involved, influencing each other through mutual interaction (Mertens & McLaughlin, 2004). Qualitative enquiry endorses the notion that different views on the same phenomenon might exist. The researcher explored how each participant perceived and understood dynamic assessment in terms of its relevance for their practice. Merriam

(1998) states that researchers conducting basic qualitative studies typically use three methods for collecting data: observation, interviewing and the reviewing of documents and records. However, owing to the focus of the present study, interviewing was chosen as the most appropriate method.

To understand in detail how participants perceive and make sense of dynamic assessment in terms of its relevance for their practice, semi-structured interviews were conducted because interview questions may be reordered during the interview, the wording of questions is flexible, the level of language may be adjusted and the interviewer may answer questions, make clarifications, and add or delete probes to interview between subsequent participants (Berg, 2007). This enables the researcher and participants to engage in a dialogue in which initial questions could be modified in the light of the participants' responses. In addition, the use of semi-structured interviews meant that rapport and empathy could be facilitated. It also allowed greater flexibility of coverage and "enabled" the interview to go into novel areas. Smith and Osborn (2008) contend that this method of data collection tends to produce richer data.

With the above in mind, Patton (1987) points out that the onus is on the researcher to ensure that "essentially the same information is obtained from a number of people by covering the same material" (p. 111). Furthermore, because the quality of information obtained during the interviews is largely dependent upon the interviewer, it was essential that she provided a framework within which the participants could respond comfortably, accurately and honestly to open-ended questions. Therefore, in accordance with the method of semi-structured interviewing, the interviews in the present study were guided by an interview schedule (see **Appendix I)**. The interview schedule served as a basic checklist during the interview to ensure that all relevant and important areas of inquiry were covered and explored (Patton, 2002).

The interview schedule used in this study was constructed in the manner described by Smith and Osborn (2008) and Patton (1987, 2002). The questions that made up the interview schedule were derived at and informed by the literature review and the research questions. Following on this, the interviewer was able to probe interesting and important areas which arose during the interview (Smith & Osborn, 2008). This process is often referred to as depth interviewing and requires skill, sensitivity, concentration, interpersonal understanding, insight, mental acuity and discipline on the part of the interviewer (Patton, 1987). Patton (1987) states that in-depth interviewing is an important source of qualitative data because it probes beneath the surface, soliciting detail and providing a holistic understanding of the participant's point of view. It also "adds inner perspective to outward behaviours" and may serve as a source of meaning and elaboration for the interviewer's observations (Patton, 1987, p. 109).

To get some practice in depth interviewing and evaluate the appropriateness of the interview questions, the researcher piloted the interview schedule with three of her colleagues (i.e. educational psychologists who were familiar with dynamic assessment). This allowed her to try out the preliminary interview schedule questions and get some feedback on the sequence (the researcher made use of the funnelling technique described by Osborn and Smith (2008)), level of difficulty and tone. Piloting the interviews further assisted the researcher in constructing prompts for more difficult questions, estimating the length of the interview, thinking about difficulties that might be encountered (such as the wording of the questions or sensitive areas) as well as how these may be handled. When it came to the actual interviews, the process allowed the researcher to focus more thoroughly and confidently on what the participants were actually saying (Smith & Osborn, 2008). In accordance with the findings of Patton (1987), the interview schedule kept the interaction focused, but also allowed for individual perspectives to emerge.

Interviews in this study were conducted using the guidelines as suggested by Kelly (2006a, pp. 297-301). The researcher had an idea of the area of interest, some questions to pursue and with these, tried to enter the worlds of the respondents. Respondents were perceived as the experiential experts on the subject and therefore were allowed maximum opportunity to share their views. Open-ended questions were asked during the interview to learn more about how participants understand and interpret dynamic assessment. Open-ended questions permitted participants to decide on the direction they wanted to take and the words they wanted to use to express their feelings, thoughts and experiences (Patton, 2002). This was important, since the aim of the study was to gain an understanding of the views of the participants. As the researcher is fluent in English and Afrikaans, participants could answer the questions in the language that they preferred.

Although an hour was originally allocated for each interview, most of the interviews ranged between 20 and 55 minutes, and the average duration was about 30 minutes. All the interviews were conducted by the researcher herself and were then transcribed by a scribe. Once the researcher had received the transcripts from the scribe, she listened to the interview recording while reading through the transcripts. Each transcript was checked individually for verification purposes. Only then was the researcher able to proceed with the process of data analysis.

4.4.4 Data analysis, interpretation and synthesis

Data analysis involves reading through the data repeatedly and engaging in activities of breaking the data down (preliminary analysis: thematising and categorising) and building it up again in novel ways (synthesis, elaborating and interpreting) (Terre Blanche, Durrheim & Kelly, 2006, p. 322). Interpretation and synthesis refers to the stage in the research process where the researcher tries to

assimilate and integrate the data, either by relating the various individual findings to an existing theory or hypothesis, or by formulating a new hypothesis that would best account for the data (Mouton, 1996).

As the overall coherence and meaning of data is more important than the specific meanings of its parts, the researcher made use of data analysis strategies that are more holistic and interpretive (Terre Blanche & Durrheim, 1999). The data analysis process in the present study involved two phases. The first phase involved the preliminary analysis of the data. In the second phase, a synthesis of content analysis (Henning, van Rensburg & Smit, 2004; Patton, 2002) and interpretive analysis (Terre Blanche, Durrheim & Kelly, 2006) was employed.

Content analysis refers to "any qualitative data reduction and sense-making effort that takes a volume of qualitative material and attempts to identify core consistencies and meanings" (Patton, 2002, p. 53). In content analysis, the research focuses on searching the content of the data texts (the transcripts) for recurrent themes (Henning, van Rensburg & Smit, 2004; Patton, 2002). Furthermore, Gbrich (2007) states that content analysis can also be seen as a systematic coding and categorizing approach that enables the researcher to explore large amounts of textual information. Through this process, the researcher is able to ascertain the trends and patterns from participants' words, their frequency, their relationships and the structures and discourses of communication.

The key to doing a good interpretive analysis is to stay close to the data and to interpret it from a position of empathic understanding. Furthermore, it entails a thorough description of the characteristics, processes, transactions and contexts that constitute the phenomenon (Terre Blanche, Durrheim & Kelly, 2006). To achieve this, the researcher integrated the interpretive analysis strategies of familiarisation and immersion, inducing themes, coding, elaboration, checking and interpretation (Terre Blanche, Durrheim & Kelly, 2006) with content analysis. The rest of this section is devoted to explaining this process of content/interpretive analysis.

Familiarisation and immersion

Preliminary data analysis is an ongoing process that is undertaken every time data is collected. It involves a simple process of checking and tracking the data to see what is coming out of them, as well as identifying areas that may require follow-up (Gbrich, 2007). It also allows the researcher to actively question where the information collected is leading or should be leading. According to Gbrich (2007), preliminary data analysis is "a process of engagement with the text, not so much as to critique it, but more to gain a deeper understanding of the meanings and values which lie therein" (p. 25). In exploring the personal views of participants regarding the relevance of dynamic

assessment for their practice, the researcher followed the following guidelines outlined by Rubin and Rubin (2005); Henning, Van Rensburg and Smit (2004) and Grbich (2007):

- The analysis started when the interviews were transcribed. Interviews conducted in Afrikaans were translated directly into English capturing original ideas and meaning. The researcher's comments were then added to the transcribed data.
- The researcher made use of a "face sheet" (Grbich, 2007; see **Appendix J**) to assist her in the initial process of data analysis.
- The entire text was read to get an overall impression of the content and to identify important ideas and events in the interviews. The text was then re-read to start identifying units of meaning.

The process of reducing the data into meaningful groupings that are easier to manage were carried out by a "block and file" approach and "conceptual mapping" (Gbrich, 2007). The advantage of the block and file approach is that one can keep fairly large chunks of data intact. The data were underlined, italicized or colour-coded to keep them in the context of overall interview data, or to maintain cases as separate entities. The segments were then grouped and placed in a table with headings added to clarify and categorise the contents of each column. In addition, the conceptual mapping approach was used to provide a simpler, more "flexible" picture of the "units of meaning" that emerged from the data (Gbrich, 2007). The advantage of using the conceptual mapping approach is that it gives one a neat and brief summary of the "units of meaning" that are emerging (Gbrich, 2007). An example of this can be found in **Appendix K**. The process of preliminary data analysis allowed the researcher to identify "units of meaning" and organise the data into topics/categories and themes.

Inducing themes and coding

Instead of using ready-made categories and simply looking for "units of meaning" that fit into these predetermined categories (i.e. top-down approach), the researcher considered the material and tried to work out what the organizing principles were that "naturally" underlay the material (Terre Blanche, Durrheim & Kelly, 2006). This was done by means of "induction" (Terre Blanche, Durrheim & Kelly, 2006), which means that "patterns, themes and categories of analysis come from and emerge out of the data; rather than being decided prior to data collection and analysis" (Patton, 1987, p. 150). In retrospect, it was important during this part of the process for the researcher to move beyond the mere summarization of the content. She also had to, as Terre Blanche, Durrheim and Kelly (2006) suggest, "think in terms of processes, functions, tensions and contradictions" (p. 323). While working through the data and developing themes, the units of meaning were labelled

with codes. Coding entailed marking different sections of the data as being instances of, or relevant to, one or more of the identified themes (Terre Blanche, Durrheim & Kelly, 2006).

In keeping with the principles of inductive interpretive analysis, the researcher used the language of the participants instead of "abstract" language to label the data. The particular labels given to the "units of meaning" are termed codes. Each code had a clear and consistent definition referring to the same subject across all the interviews. Related codes were then categorised, after which different categories were labelled. Categories subsequently revealed themes that were constructed from the data. Each theme was used as the basis for an argument. The themes then became evidence with which arguments about the emerging knowledge claims of the researcher (Rubin & Rubin, 2005; Henning, van Rensburg & Smit, 2004) were verified.

In view of the above, the following practical steps as suggested by Smith and Osborn (2008) were followed:

- There was sustained engagement with the text in the transcript to increase familiarity with the content and complexity of the text. The left-hand margin was used to annotate interesting or significant comments. After this free textual analysis, the researcher returned to the beginning of the transcript. The right-hand margin was used to document emerging themes. Initial notes were transformed into concise phrases capturing the essence in the text.
- Once all the transcripts had been analysed, emergent themes were listed on a sheet of paper. In the initial list, the order was according to the sequence in which they appeared in the transcripts. The second list involved a more analytical ordering as the researcher attempted to make connections between themes. Themes were clustered together and checked with what the participants actually said. Next, a table of themes was compiled where clusters were given names, representing the subordinate themes.
- A final table of subordinate themes was constructed. Main subordinate themes were then identified. Final themes were then translated into a narrative account in which themes were explained and illustrated. A detailed account of this can be found in chapter 5.

Elaboration, checking and interpretation

Exploring themes more closely by considering the various ways in which the units of meaning that were grouped together differ and identifying sub-issues and themes that come to light, is called elaboration (Terre Blanche, Durrheim & Kelly, 2006). The purpose of elaboration is to capture the finer nuances of the meaning not captured by the researcher's original coding system and to continue with this process (coding, elaborating, recording) until no further significant or new insights appear to emerge (Terre Blanche, Durrheim & Kelly, 2006). At this point, the transcripts

were analysed thoroughly. Subsequent to the elaboration process, coded themes and thematic categories were synthesized to generate a written account of the phenomenon under study. This process is referred to as interpretation.

The coded themes and thematic categories from the process of analysis were used as subheadings in the narrative account. This interpretation was then fine-combed to correct the weak points (for instance, examples that contradict some point or another in the interpretation, summaries that are merely summaries and nothing more, and instances where the researcher got carried away with his/her own prejudices) (Terre Blanche, Durrheim & Kelly, 2006). During this stage, the researcher reflected on her own role in collecting the data and creating the interpretation.

A transcribed interview is attached as **Appendix L** to reveal the process of coding. The codes used were in the form of abbreviations. All data with a similar code were then organised under the same code. An example of this process is attached as **Appendix M**. Related codes were then categorised under a specific theme. An example of the categorizing of related codes is attached as **Appendix N**. Identified themes and categories pertaining to this study are discussed in chapter 5.

4.4.5 Data verification and trustworthiness

> "Researchers are entrusted by participants to represent them in a truthful and responsible manner" (Daniels, 2008, p. 1).

Several major strategies are used for validating and verifying the results of qualitative analysis and ensuring that the reported findings are trustworthy. "Verification is a twofold consideration" (Berg, 2007, p. 48). First, conclusions drawn from the patterns apparent in the data must be confirmed (verified) to assure that they are real and not merely wishful thinking on the part of the researcher. One way in which this may be accomplished, is for the researcher to carefully check the path to the conclusion(s) drawn – in other words, retracing the various analytic steps that led to the conclusion (audit trail). Another may involve having another researcher (in this study, the researcher's supervisor was consulted) independently examine the displays and data to see if she would draw comparable conclusions – this serves as a kind of inter-coder reliability check (Berg, 2007). Second, verification involves assuring that all the procedures used to arrive at the eventual conclusions have been articulated clearly. In this manner, another researcher could potentially replicate the study and the analysis procedures and draw comparable conclusions. This implies that qualitative analysis needs to be very well documented as a process. In addition to its availability to other researchers, the process data verification allows for a) the evaluation of analysis strategies used, b) self-reflection and c) the refinement of the methods and procedures used (Berg, 2007). Guba and Lincoln (in Mertens, 2005) indicate the criteria for judging the quality and trustworthiness of

qualitative research as credibility, dependability, confirmability and authenticity. These are discussed individually in the sections that follow.

4.4.5.1 Credibility

Credibility refers to the question of whether the way the participants really perceive social constructs corresponds with the way the researcher portrays their perspectives (Mertens, 2005). To ensure credibility in this study, the researcher made use of "member checks". Mertens (2005) states that member checks is the most important criterion in establishing credibility. Member checks in this study involved verifying with participants the developing constructions during the process of data collection and data analysis (Mertens, 2005). Participant perceptions and opinions were summarized and clarified during the interview and at the end of the interview to enhance the researcher's understanding of what had been said. After the interviews had been transcribed, all the transcripts were sent to the individual participants via electronic mail. This was done to give participants the opportunity to read through the transcripts and verify whether they in fact contained what they had said. At certain points in the interview, it was difficult to make out what the participants actually said. The researcher indicated this on the transcripts and asked the participants to fill in the parts where their voices were indistinct. Furthermore, they were also given the opportunity to specify if there was anything in the transcripts that they wanted to add, change or exclude. This was done to ensure that the participants felt comfortable with the data being used in the discussion of the research findings and to increase the researcher's ability to reflect the participants' viewpoints accurately.

4.4.5.2 Dependability

Guba and Lincoln (1989 in Mertens, 2005) identified dependability as the qualitative parallel to reliability. Mertens (2005) states that reliability in a positivist paradigm means "stability over time" (p. 257). However, in the interpretive/constructivist paradigm, change is expected. Therefore, it is imperative that the qualitative enquiry process related to data collection, analysis and interpretation is documented to ensure that it can be tracked and inspected publicly (Mertens, 2005). A dependability audit, related to a detailed description of the research process, can confirm the quality and appropriateness of the research process (Mertens & McLauglin, 2004). In an effort to increase the dependability of this study, the researcher has provided a detailed description of the collection, analysis and interpretation of data. **Appendices G** to **M** are attached to clarify the enquiry process.

4.4.5.3 Confirmability

Confirmability indicates that logic is used specifically in the interpretation of qualitative data and that data and the interpretation thereof are not figments of the researcher's imagination, but can be traced back to a source (Mertens, 2005; Mertens & McLauglin, 2004). A confirmability audit attests to the fact that data "can be traced to the original sources and that the process of synthesizing data to reach conclusions can be confirmed" (Guba & Lincoln in Mertens, 2005, p. 257). The confirmability and dependability audits can be conducted in conjunction with each other. Since it is impossible to provide readers with all the raw data to evaluate the research, an account of how evidence has emerged and has been processed can be made available (Kelly, 2006c). This means that readers must be provided with an audit trail (Miles & Huberman, 1984 in Kelly, 2006c), which is a detailed description of the data generating and analysis process (Kelly, 2006c). Chapter 1 and chapter 4 of this study have provided an in-depth account of the research process and can therefore be seen as strengthening the confirmability of the study.

4.4.5.4 Authenticity

The context must be true to each participant. Authenticity refers to a fair presentation of all participants' perspectives, values and beliefs (Lincoln & Guba, 2000 in Mertens, 2005). This criterion was applied throughout the research process to increase cultural sensitivity, collaboration and respect between the researcher and participants. It also enabled the researcher to tailor research procedures according to the population being studied (Sieber in Mertens, 2005). The fact that the interviews were conducted in the "everyday" contexts of the participants increases the authenticity of the study.

4.4.5.5 Transferability

Transferability refers to the degree of similarity between the site of study and the receiving context (Mertens, 2005). Readers are required to determine the similarities between the research study and their own contexts, based on the extensive and careful description of time, place and context provided by the researcher (Mertens & McLauglin, 2004). Transferability is also linked to the "generalisability" of the study and the extent to which research findings can be applied to and provide answers in other contexts (Kelly, 2006c). It also enables other researchers to use the research findings in making comparisons with their own work (Kelly, 2006c). Guba and Lincoln (in Babbie & Mouton, 2001) note that an in-depth explanation of the research process and discussion of the research findings can result in greater transferability to other contexts. In view of this, transferability was adhered to in this study by providing an in-depth description of the manner in

which data were collected, processed and reported to ensure that participants' responses were dependable, trustworthy and representative of what they believe.

4.5 ETHICAL CONSIDERATIONS

Research is considered ethical if it conforms to the standards of conducting scientific enquiry (Babbie & Mouton, 2001). The researcher remains accountable for the ethical quality of the study and must ensure that the enquiry is conducted in an ethically proper manner. The Ethical Code of Professional Conduct of the Professional Board for Psychology, Health Professions Council of South Africa (in Babbie & Mouton, 2001), has been the guiding principle for the research done in this study.

4.5.1 Voluntary participation

Participation in this study was completely voluntary, and the participants truly understood their right to refuse to participate (Mertens, 2005). When the researcher first made contact with the participants, they were telephonically and electronically informed and briefed about the purpose and research aims of the study, as well as what their role in the research process would be. After they had verbally agreed to participate in the study, the researcher made appointments to arrange interviews. The research process was then discussed in more detail when the researcher met with the participants in person to conduct the interviews. They were given an informed consent form (see **Appendix G**). After they had read through the information, opportunity was given for participants to ask questions and raise concerns. Once participants had been fully informed and they were comfortable with and agreed to the manner in which the research process would be executed, their written informed consent was obtained.

4.5.2 Beneficence and nonmaleficence

Beneficence obliges the researcher to attempt to maximise the benefits that the research will afford to the participants in the research study. In combination with nonmaleficence, beneficence finds expression in research ethics in "risk/benefit determinations, where the researcher and ethics committees have to consider the relative risks of the proposed study against any benefits that the study might actually bring to the participants or to society through knowledge gained" (Wassenaar, 2006, p. 67). The benefits of participating in this study were that participants were given the opportunity to reflect on their current assessment practices, and if they were interested in finding out more about dynamic assessment, the researcher could direct and introduce them to relevant resources, literature and practitioners in the field.

The principle of nonmaleficence requires that the researcher "ensures that no harm befalls research participants as a direct or indirect consequence of the research" (Wassenaar, 2006, p. 67). No apparent risks of participating in this study could be identified. This was discussed with the participants. During the study, the principle of nonmaleficence was adhered to by complying with the Ethical Code of Professional Conduct of the Professional Board for Psychology and the principle of autonomy and respect.

The process of voluntary participation, whereby informed and voluntary written consent was obtained, ensures that the autonomy and dignity of the participants are respected. Furthermore, the researcher followed the suggestions by Rubin and Rubin (2005) to ensure that respect was shown towards the participants. Permission was obtained to record conversations, and the researcher turned the recorder off when participants requested her to do so. During the interview, participants were not obligated to answer questions which made them feel uncomfortable. Participants' permission was obtained to use answers worth quoting as a quotation in the discussion of the research findings. Finally, the researcher has made sure that the revealing of research information related to this study will not produce unpleasant effects for the participants, for instance embarrassing them or endangering their lives.

4.5.3 Informed consent

Informed consent was adhered to in this study by a) providing participants with the appropriate information with regard to the study and the research process, b) taking into account participants' competence and understanding, c) ensuring the voluntariness in participating and freedom of participants to decline or withdraw after the study has started and d) the formalization of the consent in writing (Wassenaar, 2006). Written informed consent was obtained after a thorough discussion with participants about the research, which included informing them about the intended research agenda and purpose, research design, risks and benefits, as well as assurances of the voluntary nature of participation, freedom to refuse or withdraw without penalties, the reporting of the data and their expected role in it.

Interviews implied consent by agreeing to an interview. Prior to the interview, all participants signed a letter regarding consent to participate. The participants and the researcher signed two copies – one for the participant and one for the researcher. All aspects of ethical consideration were covered in this letter (see **Appendix G**). Participants were also asked whether they had any objections to the use of a digital voice recorder and a scribe (for transcribing the interviews).

4.5.4 Anonymity, privacy and confidentiality

The protection of participants' identities is an effort to protect their interests and well-being. No wonder that codes of ethics "insist on safeguards to protect people's identities and those of the research locations" (Christians, 2003, p. 218). Therefore, it is imperative that the researcher takes all the necessary steps to ensure confidentiality of participants, as it is the primary safeguard against unwanted exposure. Christians (2003) advises that participants' personal data ought to be secured and made public only behind a shield of anonymity.

Anonymity refers to the situation when the researcher cannot identify a given response with a given respondent. Confidentiality refers to the case when the researcher can identify a given person's responses, but the respondent is assured that it will not be revealed publicly. It also refers to not revealing participants' identities or linking comments with their names (Rubin & Rubin, 2005). Confidentiality also entails keeping interview data in a safe place or destroying evidence that links information in interviews to specific individuals (Rubin & Rubin, 2005). To assure that the participants' identities did not become public, all identifying information were deleted or destroyed as soon as further contact with the participant was no longer necessary.

Regarding anonymity, privacy and confidentiality in this study; numbers (for example "P-5") were used to distinguish between participants without revealing their true identities. In addition to changing the names of participants to a case number, the researcher also had to ensure that all other identifying information of the person were either altered or deleted. Participants had the right and opportunity to say which information they wanted to reveal anonymously.

As anonymity is virtually impossible in most qualitative research (because participants are known to the researcher), it was important to provide participants with a high degree of confidentiality (Berg, 2007). To ensure this, precautions were taken to ensure that research-related information was not discussed carelessly (Berg, 2007). For this reason, the scribe had to sign a statement of confidentiality (see **Appendix H**). In addition, the researcher was extremely careful about how she discussed the participants in the study, as it is imperative that the researcher must respect the privacy and wishes of participants (Daniels, 2008b).

4.5.5 Analysis (accuracy of the data), reporting and dissemination of results

In research, it is essential that the researcher adheres to the highest possible standards and readily indicates the limitations of findings and methodological constraints. Ensuring that data are accurate is a cardinal principle in research ethics. Under all circumstances, researchers must guard against the misrepresentation of results as well as fabrication or falsification of data (Babbie & Mouton, 2001).To ensure the credibility and accuracy of data in this study, the researcher sent the transcripts

to the participants electronically for member checks. Participants were given the opportunity to add, change or delete any information that they did not agree with or that made them feel uncomfortable. In this way, the researcher ensured that the data to be used were accurate, that participants were treated with respect and represented truthfully. Finally, the research report has been compiled as accurately, objectively and clearly as possible so that the reader can understand and benefit from the research findings.

4.6 CONCLUSION

In this study, basic qualitative, interpretive research was employed to explore educational psychologists' views and understanding of dynamic assessment in terms of its relevance for their practice. Through interviews, rich descriptions of their experiences with and knowledge of dynamic assessment influenced by their circumstances could be generated. These descriptions provided substantial data from which perceptions with regard to the relevance of dynamic assessment for educational psychology practices in the South African context could be identified as themes and categories. These themes may be used to direct the education of psychologists, to inform professional policy and the continuous professional development of educational psychologists.

This chapter discussed the research paradigm, design and methodology of the study in detail. Methods used for the collection, analysis, interpretation and verification of data were explained. Ethical considerations related to the research process were highlighted. The research findings of the study and possibilities for future research are discussed in the following chapter (chapter 5).

CHAPTER 5

PRESENTATION AND DISCUSSION OF RESEARCH FINDINGS

5.1 INTRODUCTION

This chapter is devoted to presenting and discussing the research findings of the study. The main findings are presented and discussed according to eight thematic categories. As this research is embedded in a constructivist/interpretive paradigm, this chapter includes an in-depth examination of participants' responses, as they relate to the focus of the study. As discussed in chapters 1 and 4, the primary research question this study aimed to answer was the following:

- What are educational psychologists' views on the relevance of dynamic assessment for their practices?
- The following secondary research questions were also formulated:
- To what extent does dynamic assessment yield information that educational psychologists find useful?
- What are educational psychologists' views on the incorporation of dynamic assessment into their practices?

The research findings presented in this chapter will address the research questions and are discussed under the following headings: 1) Educational psychologists' exposure to and training in dynamic assessment; 2) Educational psychologists' knowledge and understanding of dynamic assessment; 3) Educational psychologists' views on the relevance of dynamic assessment for their practices; 4) Educational psychologists' views on the relevance of dynamic assessment in the South African context; 5) The advantages and disadvantages of dynamic assessment; 6) Factors that affect the extent to which dynamic assessment is incorporated into practice; 7) Educational psychologists' views on the incorporation of dynamic assessment into their practices; and 8) Educational psychologists' experiences of the research interview.

5.2 PRESENTATION AND DISCUSSION OF THE RESEARCH FINDINGS

5.2.1 Educational psychologists' exposure to and training in dynamic assessment

Research findings relating to educational psychologists' exposure to and training in dynamic assessment correlate with the findings of the limited number of South African studies on dynamic assessment. It confirms research findings of Murphy and Maree (2006), who noted that even though dynamic assessment is receiving increasing attention from educational psychologists, educators and research practitioners, it is a field which, although researched internationally for a number of years, has yet to find its place in mainstream South African research.

The limited amount of research on dynamic assessment in South Africa interacts with and influences the degree of exposure and the type of training that educational psychologists and other professionals receive in it. The table below provides an overview of participants' responses regarding their exposure to and training in dynamic assessment.

Table 5.1: Themes and categories related to educational psychologists' exposure to and training in dynamic assessment

CATEGORIES	THEMES
• **First exposure:** University, district work (learning support colleagues), Instrumental Enrichment training, Feuerstein Institute • **Type/Degree:** Either very little or very extensive, but always brief	**1. Exposure to dynamic assessment**
Types: Ranged from superficial to intensive and extensive, but always brief • University (courses, workshops, lectures, talks, some practical work, research for thesis (Vygotsky and/or Feuerstein) • Self study • Training in specific tools / instruments (by DA practitioners)	**2. Training in dynamic assessment**

5.2.1.1 Educational psychologists' exposure to dynamic assessment

When participants were asked about their exposure to dynamic assessment, participants indicated that it was either "very little" (P-1; P-3; P-4; P-8; P-9; P-10; P-11; P-12) or "extensive and intensive" (P-2; P-5; P-6; P-7), but always "brief" (all). Some were exposed to it by practitioners and institutions in the private sector (P-3; P-6), while others mainly encountered it in their district

work (P-1; P-7; P-11). However, the majority (P-1; P-2; P-4; P-5; P-7; P-10; P-11; P-12) noted that they had first been exposed to dynamic assessment at university, either during their undergraduate studies (i.e. B.Ed.) and/or postgraduate studies (i.e. Masters in Learning Support or Educational Psychology). One participant explained that her first exposure had been a talk by a dynamic assessment expert, and that she had been exposed further to it through the academic content of the Master's programme:

> "I was first exposed to it during the first year of the Masters program ... There was a visiting lecturer and he came and gave a talk ... demonstrated an instrument (can't remember what his name was) ... So, that is my exposure to it ... through the first Masters training and the reading and the assignments ... the academic literature ..." (P-7)

Another participant (P-8) reported that his first exposure to dynamic assessment had been at the educational psychology training unit of the university, where he was a lecturer and supervisor for educational psychology students and interns at the time. He mentioned that he had attended a talk and demonstration by two "enthusiastic" dynamic assessment practitioners.

Educational psychologists employed at the district offices of the Education Department reported that, although they first had been exposed to dynamic assessment at university, they had actually encountered it more through their interaction and conversations with their "learning support colleagues" who had received some training in dynamic assessment. These colleagues invited participants (P-1; P-7; P-10; P-11) to demonstrations and talks offered by dynamic assessment trainers. One participant stated that, in addition to interaction with his colleagues, he had been exposed further to dynamic assessment through his own reading, interest and research on it, as illustrated in the excerpt below:

> "I encountered dynamic assessment more in my district work and with ***'s (DA practitioner) work. Also, him speaking to learning support people ... not to us as psychologists, but to teachers, and also ... picking it up through my own reading and interest ... When I did my second masters, the underlying theoretical frame for my thesis was Vygotsky, and a bit of Piaget ... so, there was my exposure again. I didn't attend any of his courses, but it has been through my own reading and interaction with the learning support people who were involved with him ..." (P-1)

The excerpt above shows that exposure was "prolonged" through individual interest, self-study and further research. This was confirmed by two other participants (P-6; P-7).

Finally, participants reported that they had been introduced to dynamic assessment via connections with private practitioners and/or institutions. One participant (P-6) mentioned that she had first encountered it when she had been doing the training in Instrumental Enrichment (Feuerstein) with one of the dynamic assessment trainers in Cape Town. Another (P-3) indicated that she had first

come across dynamic assessment at The Feuerstein Institute in London, when she had applied for a teaching post there. However, she mentioned that she had been exposed further to it by a friend, who is a dynamic assessment practitioner:

> "I have recently had information sessions with my friend, who is a dynamic assessment practitioner, and she showed us the materials and her workbooks and so we got a good overview and sense of what it is ..." (P-3)

From participants' responses, it appears that, when in private practice, educational psychologists' primary exposure was through tertiary education. However, participants working in the state education district offices were primarily exposed through their interaction with their colleagues (most likely because dynamic assessment trainers are brought in to train teachers). For both groups, however, their own reading and personal interest accounted for further exposure in dynamic assessment.

5.2.1.2 Educational psychologists' training in dynamic assessment

The degree to which educational psychologists in this study are trained in dynamic assessment ranged from those having "no formal training, only exposure"; (P-1; P-2; P-3; P-4; P-8; P-9; P-10; P-11; P-12); to those who described their training as "intensive and extensive, but brief" (P-5; P-6; P-7). One participant (P-6) received her training from a practitioner in the private sector, while the majority (P-1; P-2; P-3; P-5; P-7; P-10; P-11; P-12) received their "training"[1] at the university where they studied. The reported type, length and intensity of the training offered at universities have increased over the years.

One participant (P-8), who had been in practice for 34 years, indicated that he had had no training in dynamic assessment whilst studying, and that he had first encountered it later on in his career. Participants who had been in practice for more than four years (P-3; P-4; P-6; P-7; P-9; P-10; P-11), reported that their training had entailed "a brief introduction" to dynamic assessment, that it had involved "demonstrations, talks, presentations and one-day workshops". It was further noted that, apart from the practical demonstrations, the training was mainly theoretically based. In the light of this, many of the participants felt that it could not be considered as training, as one of them explained:

> "And my training in dynamic assessment ... Honestly, I don't think we've had very much when I was studying ... Informal training ... I would not even call it training; I would say it was

[1] Although workshops and/or demonstrations and/or information sessions were classified in tertiary courses as training, participants preferred to refer to it as exposure rather than training.

> more umm ... informing ourselves on what it is. So knowing what it is, as opposed to being given the tools to use it ..." (P-3)

On the contrary, participants who had qualified as educational psychologists in the last three years reported that training involved a three-day to one-week workshop providing theoretical background, as well as an introduction to and demonstration of some of the dynamic assessment tools, instruments and procedures. However, depending on the tertiary institution where participants studied, the theoretical component of the training was strengthened further by a practical component. One of the participants, who had qualified recently, provided a description of the training she had received:

> "Die opleiding was nogal redelik ekstensief ... 'n Dinamiese assesseerder/praktisyn het 'n blok onderrig oor dinamiese assessering gegee. Ons het ... jy het 'n volle week klas gehad. Ons het 'n groot deel teorie gedoen, maar dan het hy die teorie versterk met praktiese demonstrasies ... en dan was daar 'n praktiese komponent waar jy 'n kliënt gesien het vir dinamiese assessering en verslag moes skryf. Jy het 'n opdrag gekry om self 'n kliënt te gaan identifiseer, dit met 'n persoon te doen en dan so 'n mini verslag te skryf. So ons het 'n teoretiese komponent gedoen, met ander woorde, meer algemeen 'n bietjie oor dinamiese assessering en toe het ons dit self, die twee instrumente gaan toepas met ons kliëntjies wat ons by die huis gehad het, maar dan was ons ook ... ons moes almal vir 'n dag by 'n skoolkliniek in Kaapstad wees ... wat ons daar kliënte gekry het en dit weer gaan toepas het, onder sy supervisie en 'n verslag geskryf het ... Hy het ook gedemonstreer hoe dit byvoorbeeld met die JSAIS en SSAIS-R word gedoen met die blokpatrone ..." (P-5)

> "*The training we did was quite extensive – a full week's training that consisted of a series of lectures by a dynamic assessment practitioner. We did a lot of theory, which provided an overview of dynamic assessment. The theory was then strengthened by a practical component, as well as practical demonstrations. There were two instruments that were demonstrated ... that we were trained in and then had to apply. We then had to identify a client, to do a 'dynamic assessment' with, using the instruments that we were trained in and write a 'mini-report' ... and then he gave us feedback on it. We also did a practical at a school clinic in Cape Town – where we received clients and had to apply the two instruments again, under the DA practitioner's supervision ... and write a report ... He (the dynamic assessment practitioner) also demonstrated how it can be used with standardised psychometric tests, for instance, the JSAIS and the SSAIS-R ... with the Block Designs ..." (P-5)*

Although training was described as extensive and intensive, the participant also highlighted some other concerns with regard to the training received at the tertiary institution where she had studied and emphasised the high level of expertise that was needed to use it appropriately, as clarified in the statement below:

> "Jy sien dis die een ding wat ek, al het ons daardie opleiding by die dinamiese assesseerder/praktisyn gehad ... Ek dink ons het 'n stap te ver begin. Ons moes ... alles wat hy gesê het maak vreeslik sin, maar as jy dit self gaan doen ... om daai leemtes te gaan identifiseer moet jy nogal 'n redelike kennis hê van veral jou kognitiewe sielkunde - hoe vind leer plaas ... Want onthou, dis 'n veld op sy eie ... 'n spesialisveld op sy eie ... So ek het 'n leemte daarin gesien." (P-5)

> *You see, this is the one thing that I, even if we had that training at the dynamic assessor/practitioner ... I think we started a step too far. We had to ... everything he said made much sense, but if you are going to do it yourself ... to identify those gaps will require a fair knowledge of especially your cognitive psychology - how learning takes place ... Because remember, it is a field on its own ... a special field on its own ... So, I saw a gap in that." (P-5)*

Another participant (P-6) attended a seven-day intensive training in one of Feuerstein's instruments offered by a dynamic assessment trainer in Cape Town:

> "I did the IE training and I was hooked from that moment ... It was a seven-day training in the IE instrument and using it. It was *very* (emphasis) comprehensive ... When I did the training, it was simply the background of theory and then the use of all the instruments and a brief touching on the Learning Potential Assessment Device (LPAD) which I still would love to be trained in." (P-6)

Furthermore, some respondents (P-1; P-6; P-7) noted that, owing to their interest in dynamic assessment, that they had sustained their "training" through self-study and further research (P-1; P-6; P-7)).

This section revealed that participants had been exposed to various types of training, to varying degrees – for some superficial and insufficient, for others more intensive and comprehensive. Yet, it was always brief. Depending on the manner and the degree to which it has been incorporated into practice, some participants felt that the training had not equipped them with the practical skills and experience to be able to utilize it in an appropriate and ethical manner. Participants' exposure (brief) to and training (insufficient) in dynamic assessment interact with their knowledge and understanding of it. The next section will provide an overview of educational psychologists' knowledge and understanding of dynamic assessment.

5.2.2 Educational Psychologists' knowledge and understanding of dynamic assessment

Before an overview of participants' knowledge and understanding of dynamic assessment is given, it is important to highlight the "emotional" factors that seemed to influence participants' responses.

Participants noted that their knowledge of dynamic assessment was either limited (P-1, P-2, P-3; P-4; P-8; P-9; P-10; P-12) or sufficient (P-5, P-6, P-7, P-11), but all participants highlighted that they were not experts in dynamic assessment. Some (P-1; P-6; P-7) indicated that they "needed to do much more work", while the majority (P-2; P-4; P-5; P-7; P-8; P-9; P-10; P-11; P-12) noted that it was difficult to remember some of the concepts and instruments, as it had been a few years since their first exposure to and training in dynamic assessment. This is illustrated in a participant's response, when asked if she was familiar with any of the dynamic assessment tools or approaches:

> "Ek kan rêrig nie vir jou sê nie. Ek onthou Feuerstein. Ek weet net ons het baie daaroor gepraat en ... die rede hoekom ek dit so goed onthou dink ek is omdat dit vir my soveel sin

gemaak het. Daar is baie goed wat ek nie onthou nie, maar dit spesifiek kan ek onthou omdat dit vir my sinvol was ... en die manier hoe sy (medestudent) dit gebruik het ook baie sinvol was. Umm, maar ek kan nou nie rêrig die detail daarvan onthou nie." (P-9)

"I really cannot tell you. I remember Feuerstein. I just know we talked much about it and ... the reason why I remember it so well, I think, is because it made so much sense to me. There are many things I cannot remember, but I can remember this specifically because it was sensible to me ... and the way in which she (fellow student) used it was also very sensible. Umm, but I really cannot remember the detail of it now." (P-9)

Linked to this, another participant indicated that her knowledge of dynamic assessment was limited. When asked to share her understanding of the concept, she cautiously stated that she was not entirely sure what dynamic assessment was:

"Miskien verstaan ek nie altyd honderd persent wat beteken dinamiese assessering nie. Vir my is dit, wat ek verstaan ... is wanneer ek besig is met 'n ding, ek half remedieer terwyl ek dit doen (umm)… Weet jy, ek dink ek gebruik, nee ... Ek dink hoe ek dinamies dalk assesseer ... Ek weet nie eens of mens dit dinamiese assessering kan noem nie ..." (P-4)

"Perhaps I do not understand a hundred percent of what dynamic assessment means. To me, it is what I understand ... it is when I am busy with a thing that I sort of remedy while I am doing it (um) ... You know, I think I am using, no ... I think about how I perhaps am assessing dynamically ... I do not know if one can call it dynamic assessment at all." (P-4)

As illustrated in the excerpts above, participants' responses seemed to reflect a sense of hesitation and uncertainty, especially when asked to share their knowledge and understanding of dynamic assessment. Elaborating on this, the majority (P-1; P-2; P-3; P-4; P-5; P-7; P-9; P-10; P-11; P-12) frequently 'checked' their responses with the researcher, as illustrated in the excerpts below:

"Feuerstein, dit is mos Feuerstein? (lag lekker)" (P-9)

"Feuerstein, it is Feuerstein, isn't it? (laughs out loud) (P-9)

"So dit is hoe ek dinamiese assessering verstaan. Miskien verstaan ek dit verkeerd? (Lag) Jy's darem nou terug hier in my geskiedenis ... (*lag lekker hard saam*) ... Ja ek weet nie ... dit is nie soseer 'n teoretiese model nie. Ja dit is seker? Ek kan onthou daar was twee instrumente gewees. Die een was so 'n boek met sulke prentjies in gewees en die ander een het weer meer met figure te doen gehad. Wat jy dan doen, dit was kaartjies wat jy geplak het ... ek moet nou mooi dink ... daar was 'n reeks wat, sê nou maar onvoltooid was, kaartjies met figure, blokkies en driehoekies, is ek reg? (P-5)

"So, this is how I understand dynamic assessment. Maybe I understand it wrongly? (Laughs) You're now back in my history here ... (laugh loudly together) ... Yes, I don't know ... It is not so much a theoretical model. Yes, perhaps it is? I can remember there were two instruments. The one was a book with pictures in it, and the other one had to do with figures. What you can do, it was pictures that you pasted ... I must think well now ... there was a series that, let's say, was incomplete, cards with figures, blocks and little triangles, am I right?" (P-5)

In addition to participants' "hesitance" while sharing their knowledge and understanding, responses further reflected a "lack of confidence" regarding participants' knowledge and ability to use dynamic assessment, as illustrated in the excerpts below:

> "I don't guess I know that much. Maybe other people would think that I know a lot, but I know a fair amount. I don't know enough to give a lecture, well I don't think so. I would need to do much more work." (P-6)

> "Om dit regtig te gaan effektief toepas het ek gevoel, joe, ek weet nie genoeg daarvan nie." (P-5)

> *"To really go and apply it effectively, I felt, wow, I do not know enough about it." (P-5)*

Participants' hesitance and lack of confidence in describing dynamic assessment also seemed to be influenced by what the literature refers to as the construct fuzziness of dynamic assessment (see chapter 3, section 3.6.1). Linked to this, one participant stated that the way in which a professional defines dynamic assessment, will influence one's understanding of it and will dictate its implementation in practice. His response also reflects the difficulty that professionals have in defining the construct:

> "It depends how you define it, how you use it ... I use it as a mindset, others not ... but some people could say, 'Wat is dié nou weer ... dynamic? Dynamic, the thing ...' I mean, dynamic assessment would be seen as ... more like a 'frilly' thing on the side." (P-1)

Literature (Kaniel, 2001) identifies three areas in which the construct fuzziness (i.e. what P-1 referred to as "frilly") of dynamic assessment manifests. Participants identified two areas in their responses, namely conceptual confusion (as illustrated in the excerpt above) and the fact that approaches are not differentiated in an essential way. Lack of recognition of the third area (namely, failure to produce effective intervention programmes from dynamic assessment) may be related to participants' degree of exposure (brief) and level of training (insufficient) in dynamic assessment.

In this study, the conceptual confusion of dynamic assessment was apparent when participants referred to and described the procedure models in dynamic assessment. There seemed to be confusion regarding two of the primary procedure models, namely the sandwich and cake formats (Sternberg & Grigorenko, 2002). Furthermore, participants' responses were influenced by the fact that dynamic assessment approaches were not differentiated in an essential way (Kaniel, 2001). For instance, literature reveals that one of the primary procedure models is known by three different names, namely 1) the cake format (Sternberg & Grigorenko, 2002); 2) the clinical open-ended approach (www.dynamicassessment.com); and 3) continuous teach-test procedure (Tzuriel, 2001). As noted earlier, half of the respondents stated that dynamic assessment was based on a "teach-test-teach" approach. This seems to reflect confusion with Feuerstein's approach, which is described in

the literature as a process of ongoing intervention (Birnbaum & Deutsch in Elliot, 2000), and can therefore be considered as a continuous teach-test procedure (Tzuriel, 2001). However, when asked to elaborate, give an example or explain what they meant by a "teach-test-teach" model, these participants described the assessment steps in the sandwich format, namely: (pre)test-(intervention)teach-(post)test. Participants' confusion and difficulty in describing dynamic assessment relates to and validates criticisms raised in academic circles regarding the "construct fuzziness" of dynamic assessment. The construct fuzziness of dynamic assessment was reflected in participants' definitions, understanding, (reported) subsequent implementation of dynamic assessment, and while describing some of the procedure models. The mutually interactive, cause-effect relationships (bio-ecological/ ecosystemic theory, see section 3.6) were also evident when participants spoke about their exposure to and training in dynamic assessment, and when sharing their knowledge and understanding of it. The table below provides an overview of participants' responses with regard to their knowledge and understanding of dynamic assessment.

Table 5.2: Themes and categories related to educational psychologists' knowledge and understanding of dynamic assessment

CATEGORIES	THEMES
• Procedures, approaches and orientations (awareness of RODA & CODA) • Nature – principles and strategies • Aim/goal	**1. Definition of dynamic assessment**
<u>Knowledge</u> • Major theorists • Tools & instruments • Applications of dynamic assessment • Principles and philosophy	**2. Knowledge and understanding of dynamic assessment**
<u>Understanding</u> • Definition-oriented understandings • Personalized, integrated understandings • Confusion: Fuzziness of the concept	

5.2.2.1 Defining dynamic assessment

Although participants showed some knowledge and understanding of dynamic assessment, they were very cautious in their responses regarding definitions of dynamic assessment.

Participants defined dynamic assessment differently. Most of the definitions related to either the type(s) of procedure(s) used, the nature of dynamic assessment and/or the overall goal of dynamic assessment. There was no consensus regarding the type(s) of procedures used. There was some consensus relating to the nature of dynamic assessment and complete consensus with regard to the overall goal of dynamic assessment. Although defined differently, participants seemed to agree that dynamic assessment has certain salient features. The degree of consensus is indicated in brackets next to participants' responses.

1. Types of procedures (discussed in chapter 2, see 2.5.1)
    - Teach-test-teach approach/ model – (P-1; P-2; P-4; P-6; P-9; P-10)
    - Test-teach-test – (P-2; P-3; P-11); or
      Pre-test – intervention/mediation/teaching – post-test (P-5; P-7)

    Types of approaches: (discussed in chapter 2, see 2.5.2)

    - Testing the limits, Cognitive Control Battery (P-11)
    - Feuerstein Mediated Learning approach (P-6; P-7)
    - Curriculum-based dynamic assessment (CBDA) (P-7; P-11)

    Orientations in dynamic assessment (discussed in chapter 3, see 3.3.3)

    - Research-oriented dynamic assessment e.g. the LPCAT (P-5)
    - Clinically-oriented dynamic assessment, e.g. Instrumental Enrichment (P-6; P-7)

It is important to note that, in all instances, participants were able to describe a procedure, an approach or show an awareness of the two orientations in dynamic assessment, but never mentioned or referred to the terms per se – for example, describing using the "testing-the-limits" approach, without referring to it by its name. Two participants (P-1; P-9) noted that educational psychologists and teachers might already be using dynamic assessment, but may not be aware of or refer to it as such. It was further implied that one does not necessarily need to know the "right" terms to make use of it, as illustrated in the responses below:

> "I think a lot of the psychologists ... They might not be talking the way you do, with your theoretical background and your training in it, but they might have a sense of it in a different way. Like me also, I haven't been 'trained' in it, but I've read about it and the philosophy ... and the principles are those that I follow." (P-1)

> "Kyk, die diagnostiese assessering wat hulle in die skole gebruik is seker op 'n manier dinamies in die sin dat 'n mens toets en hertoets en 'intervene' en hertoets, umm ... maar ek dink nou nie hulle doen dit onder die dekmantel van dinamiese assessering nie. So, ek dink tog dit is iets wat 'n mens tog behoort te gebruik ... maar ek dink nie daar is ... as ek

> byvoorbeeld vir 'n onderwyser die woord dinamiese assessering noem ... Ek weet nie of iemand sal weet wat ek bedoel nie." (P-9)

> *"Look, the diagnostic assessment they use in schools is perhaps in some way dynamic in the sense that one tests and retests and 'intervene' and retest, umm ... but I don't think they do so under the guise of dynamic assessment. So, I do think it is something one should use ... but I don't think there is ... for example, if I mention the word dynamic assessment to a teacher ... I don't know whether somebody will know what I mean." (P-9)*

Of the four primary procedure models discussed in chapter 2, the majority were familiar with the open-ended clinical approach (www.dynamicassessment.com) that follows the individual, using generic problem-solving tasks and focuses on the principles and strategies of problem solving to facilitate independent problem solving. One participant (P-5) also demonstrated knowledge of a RODA instrument (the LPCAT) that incorporates the graduated-prompting procedure of Campione and Brown (1987). Furthermore, participants referred to and described the use of the testing-the-limits approach (Carlson & Wiedl, 1979) with the JSAIS and the SSAIS-R (all), WISC-IV (P-8; P-12) and the Cognitive Control Battery (P-11). Some highlighted Feuerstein's mediated learning approach (MLE) and the Instrumental Enrichment Programme (P-6; P-7) and described how the curriculum-based dynamic assessment approach (Lidz, 2003) can be used by educational psychologists and teachers in schools (P-7; P-11). One participant described her "personalised" approach of the testing-the-limits procedure, along with mediation:

> "I find dynamic assessment useful for once you've done, for example, the block designs on the SSAIS–R or JSAIS. You've done them and to go back and get the child to explain to you 'how' they did it and maybe make up your own example that doesn't affect the norms of the test ... and you could teach them a method of (um) ... a way to look at a drawing and to break it down and how to do it. Almost as a teaching tool and then give them another example to see if they're applying what you've taught them and then retest what you have done and see, does it improve?" (P-2)

Similarly, another participant described a personal adapted application of the testing-the-limits approach and stated that she found it useful, as it not only provided information about the person's current level of functioning, but also allowed the practitioner to obtain useful qualitative information about the person's thinking processes and other emotional and behavioural factors that may also influence the results of the assessment. This information was reported to inform the recommendations to the person and other relevant role players (for instance, parents and teachers). She explained that she encouraged the person to think and reflect, introduced him/her to metacognitive strategies to enable problem-solving and then bridged the learning experience to other contexts in the person's life. The type of mediation described is similar to Feuerstein's MLE criteria and principles discussed in chapter 2. This is illustrated in the excerpt below:

"Ek doen dit gestandaardiseerd, want die meeste van die tyd is daar 'n rede hoekom ek sekere goed moet gebruik en die tellings sê ook tog vir my iets, want dit is wat gebeur en dit benadeel sy ding ... maar dan kom ek terug. Ek gaan die meeste van die tyd, behalwe as dit nou ... Nee, ek gaan weer altyd terug. As ek klaar geassesseer is, dan gaan ek baie keer terug na van die goed wat die kind regtigwaar baie verkeerd gehad het. Dan sê ek: '*Kom ons kyk net weer daarna.*' Dan sit ek die stophorlosie weg en dan doen ons dit weer en dan is dit vir my baie interessant wat gebeur wanneer daar nie spanning is nie. (Umm) ... Of die kind sal sê: '*Maar ek kan nie onthou dat ons daai een gedoen het nie'* Dan het ek daar 'n gek antwoord ... Dan was dit óf spanning ... en dan praat ons daaroor en dan doen ons hom weer en dan is dit vir my ongelooflik wat gebeur dan, sonder spanning en ... Ek kry *soveel* (*emphasis*) inligting deur *só* (*emphasis*) op te tree dat ek dink ... jy kan dit nie net op daai manier doen nie (*meaning only in a standardised way*). Die telling van die SSAIS-R is nie vir my ... waaragter ek is nie. Ek is agter die gedrag wat plaasvind, want daar lê vir my 'n groot deel van my aanbeveling. Dan kan ek sê: Jong, weet jy, gebeur dit met jou by die skool ook? Wat gebeur met jou as daar spanning is? Of ek sien die spanning kom, want ek het netnou gesien jou wange word so rooi terwyl ons dit doen. Wat het jy gedink? Hoe maak jy? Hoe het jy by die antwoord uitgekom?" (P-4)

"I do it in a standardised way, because most of the time there is a reason why I must use certain things, and the scores do tell me certain things, because that is what happens and it harms his thing ... but then I come back. Most of the time, I go, except when it ... No, I always go back. When I have finished assessing, I often go back to some of the things the child often had wrong. Then I say, 'Come, let's look at these again.' Then I put the stopwatch away and we do them again, and then it is interesting to me what happens when there is no tension. (Um) ... Or the child would say, 'But I cannot remember that we've done that one.' Then I have a mad answer there ...

Then it was either tension ... and then we talk about it and then we do it again, and then it is unbelievable to me what happens then without tension, and ... I get so much *(emphasis) information by acting like that (emphasis) that I think ... you cannot do it only in that way (meaning only a standardised way). The score of the SSAIS-R is not for me ... what I am after. I am after the behaviour that takes place, because in that lies a great part of my recommendation. Then I can say, Do you know, does it also happens to you at school? What happens to you when there is tension? Or I see the tension come, because a few moments ago I saw your cheeks turning red when we were doing it. What were you thinking? What are you doing? How did you arrive at the answer?" (P-4)*

2. Nature

Whereas some participants' definitions focused on the procedures, approaches and orientations, others described the nature of dynamic assessment. Salient features are identified below. Participants stated that dynamic assessment:

- is interactive (mediation, intervention is built into the assessment) and provides immediate feedback (all);
- believes that a person has the capacity to change, learn and develop with the appropriate intervention/mediation (on cognitive, affective and behavioural levels) – remediates cognitive deficiencies (all);

- takes context into consideration (P-7);
- is a strength-based model (P-11) that focuses on competence, success and mastery (all);
- has a humanistic component (P-11), is respectful, hopeful, positive and empowering (all);
- is process-centred (P-2; P-3; P-4; P-5; P-6; P-7 P-8);
- focuses on meaning, intentionality and reciprocity, transference and bridging to higher levels of abstraction (P-6; P-7);
- is "dynamic", not linear (P-11) – can be structured (P-2; P-5) or unstructured (all), formal or informal (P-1; P-11)

With regard to the nature of dynamic assessment, participants agreed that it is a type of assessment that is interactive and flexible and in which immediate feedback is given to the person who is assessed. All participants emphasised the tenets of the systems theory and the belief Feuerstein (Feuerstein & Feuerstein, 1994) refers to as *Structural Cognitive Modifiability* (SCM). One participant stated:

> "Dynamic assessment, I think, takes also more into consideration, the context of how and where your assessment happens and ... it takes into consideration the learning potential ... and its beliefs in modification, what the modifiability of cognition and thinking is." (P-7)

Dynamic assessment aims to identify and address learning difficulties head on, by providing the appropriate type of mediation. Furthermore, the interaction was described as respectful, hopeful, positive and empowering in that it instils feelings of competence, success and mastery. Some further noted that dynamic assessment is a process-centred form of assessment and highlighted some of the Feuerstein's MLE criteria.

Although two participants (P-1; P-5) indicated that dynamic assessment could be structured, and some (P-1; P-2; P-3; P-6; P-7) noted that they were aware of "structured" and "formal" dynamic assessment tools available, participants indicated that they were more familiar with its use in an unstructured and informal manner. This links with the finding of Kaniel (2001), who notes that the vagueness of dynamic assessment increases as one proceeds towards implementation. Although there was some consensus regarding the inherent nature of dynamic assessment, participants differed with regard to its implementation in practice.

3. Goal/Aim

In terms of the goal/aim of dynamic assessment, all participants indicated that the main goal of dynamic assessment was to measure learning potential. Elaborating on this, participants further noted that dynamic assessment aimed to provide information about a person's reaction(s) to

intervention and his/her ability to change, learn and adapt to new circumstances. In turn, this information is used to inform intervention programmes.s

Although all participants stated that dynamic assessment measures learning potential and monitors an individual's reactions to intervention (to inform learning support programmes), many differed with regard to its implementation and utilization in practice. The way in which participants defined dynamic assessment also appeared to interact with their understanding of it. The next section will provide an overview of participants' understanding of dynamic assessment, but will also focus on individual participants' understanding of the concept.

5.2.2.2 Educational psychologists' knowledge and understanding of dynamic assessment

All participants indicated that they felt their knowledge of dynamic assessment was "limited" or "very limited". However, all respondents demonstrated knowledge of at least one key theorist who played a major role in the development of dynamic assessment, such as Piaget, Vygotsky and Feuerstein, as well as some of the tools, instruments, procedures, applications, criteria and principles of dynamic assessment.

Four participants were familiar with dynamic assessment batteries, such as the Learning Potential Assessment Device (LPAD) (P-6), the Complex Figure Drawing (P-3) which is part of the LPAD, and the Learning Potential Computerized Adaptive Test (LPCAT) (P-5). Some participants also mentioned the Basic Concepts Programme (P-2) and Instrumental Enrichment (IE) (P-6; P-7). However, these are not dynamic assessment measures, but cognitive intervention programmes. Others mentioned the names of static instruments that could be used "dynamically", such as JSAIS, SSAIS-R (all), the WISC-IV (P-8; P-12) and the Cognitive Control Battery (P-11). One participant's response (P-5) showed an awareness of the two major orientations in dynamic assessment, namely research-oriented dynamic assessment (RODA) and clinically-oriented dynamic assessment (CODA) and briefly touched on some of the differences between these two orientations, although not referring to terms per se. She noted earlier that RODA seemed to be a "safer" form of assessment, as the responsibility in terms of understanding the theory and the expertise lies primarily with the developer of the instrument. The fact that it is more structured, also means that it can be more easily acquired by professionals than CODA tools. It is illustrated in the excerpt below:

> "As jy gaan werk met 'n gestandaardiseerde instrument, is daar amper asof van daai verantwoordelikheid vir die verstaan daarvan, vir die verstaan van die teorie, lê amper by iemand anders ... by die persoon wat die instrument ontwikkel het. Ek praat oor die resultate, so dis 'n veilige beginplek vir goed, maar wat ek doen met ... Alle kliënte kan tog nie die LPCAT gaan doen en daar verander die wêreld vir hulle nie? LPCAT gaan nie vir 'n student wat akademies swaarkry, die akademiese probleme vir hom net oplos nie ..." (P-5)

> *"If you are going to work with a standardised instrument, it is almost as if the responsibility for understanding it, for understanding the theory, lies with someone else ... with the person who has developed the instrument. I am talking about the results; so it is a safe place for things to begin, but what do I do with ... All clients cannot go and do LPCAT and there the word changes for them? LPCAT will not just solve academic problems for a student who suffers academically ..." (P-5)*

However, CODA was perceived to be "less safe", as it is was reported to be more open to the practitioner's interpretation (i.e. subjective) and therefore requires a high level of expertise to use it appropriately. The participant highlighted the challenges and reservations regarding the use of CODA, but noted that it was essential, provided that it be used appropriately. It is illustrated in the excerpt below:

> "Die werk van Feuerstein het baie sin gemaak en die mediasie. Dis net nie altyd so maklik om dit in die praktyk toe te pas nie. Ek dink die ouens wat dit ontwikkel, Feuerstein, is goed daarmee ... Louis Benjamin is ook goed daarmee. Dit is nie 'n week se ding om dit self aan te leer nie, om dit toe te pas nie. En ek dink dis waar party ouens partykeer van die wa afval, waar ek ook dan al halfpad van die wa afgeval het. Dis 'n *intensiewe* (*emphasis*) proses om dit rêrig reg te kry, maar as jy dit gaan regkry, dan gaan dit vir jou ander deure oopmaak as om net te toets en te vertel." (P-5)

> *"Feuerstein's work and the mediation made much sense. It is not always so easy to apply it in practice, however. I think the people who develop it, Feuerstein, are good at it ... Louis Benjamin is also good at it. It is not something one can acquire in a week's time, to apply it. I think this is where some people sometimes fall off the wagon, where I have also fallen halfway off the wagon. It is an* intensive *(emphasis) process to really get it right, but if you get it right, it will open other doors for you than merely test and tell." (P-5)*

While some participants referred to the "mechanical" aspects of dynamic assessment, such as the tools and procedures used, others (P-6; P-7; P-11) emphasized the criteria and principles of Feuerstein's theory of Mediated Learning Experience (MLE), i.e. meaning, intentionality and reciprocity, transference and bridging. Some highlighted Vygotsky's zone of proximal development (ZPD) (P-1; P-3; P-5; P-11) and gave examples of the strategies of mediation (e.g. scaffolding) in general (all). Although participants indicated that they knew of other dynamic assessment instruments besides the ones mentioned, none of them was able to recall or know what the names of the instruments were.

Participants were also knowledgeable about the applications of dynamic assessment and noted that it was used not only by educational psychologists, but also by speech and language therapists (P-12) and occupational therapists (P-6; P-7). All participants felt that dynamic assessment had to be used more widely by learning support professionals (P-1; P-3; P-10; P-11) and teachers (P-1; P-2; P-7). Furthermore, some participants (P-7; P-8; P-11) mentioned that it could provide useful qualitative information about non-intellective factors that influence performance during an assessment.

Elaborating on this, others (P-3; P-11) noted that it could also be used as a "baseline assessment" to inform therapeutic interventions with clients. Once participants had shared their knowledge of dynamic assessment, they were also asked to share their understanding and the meaning they derived from the concept.

Participants' responses could be classified into three categories that were not mutually exclusive, namely definition-oriented understandings (P-1; P-2; P-3; P-4; P-6; P-7; P-9; P-10; P-12), personalized-integrated understandings (P-4; P-5; P-11) and those whose understandings focused on the "fuzziness" of the construct (P-7; P-8; P-12). Participants whose understandings were "definition-oriented" focused primarily on the major theorists, the type of instruments, tools, procedures used, the goal and nature of dynamic assessment as well as the principles that guide practice. This is illustrated by the participant's response below:

> "Dynamic assessment is based on Vygotsky's theory of learning and the teach-test-teach approach ... it's looking at potential to learn and to understand how somebody learns, as well as starting where they are ... and looking at how much you can extend that ... It's the opposite of static assessment ... So, it's not so much about being conforming to what you want as you're moulding to what *they* (emphasis) need and finding out how *they're* (emphasis) doing and pushing them to the maximum of their learning." (P-2)

Similarly, other participants emphasised units of meaning that were either related to 1) the goals and concepts of dynamic assessment; 2) the strategies, principles and criteria of dynamic assessment; and/or 3) the nature of dynamic assessment. Units of meaning relating to the goals and concepts of dynamic assessment were highlighted as "potential to learn", "zone of proximal development", "modifiability of cognition and thinking"; and those relating to the strategies, principles and criteria of dynamic assessment, such as "scaffolding", "mediation", "bridging and transference", "intentionality and reciprocity". Units of meaning relating to the nature of dynamic assessment included the following: "empowering", "continuous", "unstructured/ structured", "interactive", "optimistic alternative" (i.e. nature).

Participants who gave personalized-integrated understandings made use of metaphors to describe their unique understanding of the concept, such as, "walking in the child's shoes" (P-11) and "providing a ladder in order to progress to the next level of understanding" (P-4). Similarly, another participant used the metaphor of an athlete who runs and the coach's unique role:

> "As ek 'n metafoor kan gebruik: 'n Manier van assesseer is om by die wenpaal te staan en wag dat die persoon tot by jou kom en dan meet jy nou sy tyd en sien dan hoe vinnig het hy gehardloop en jy rangskik hom nou volgens sy tyd – of hy nou eerste, tweede, of derde gekom het of wat ook al, maar dit is nie dinamiese assessering nie. Dinamiese assessering is jy hardloop saam met hom en jy kyk wat is sy tegniek wat hy gebruik, waar lê sy effektiewe dele in sy tegniek en jy 'boost' hom op daai gedeeltes. Jy help hom om homself te 'boost', maar

> daar is ook dele van die tegniek waar jy vir hom voorstelle kan maak ... en waar jy kan help aanvul om dalk op 'n ander manier by die wenpaal te kom wat meer effektief is. So, dit gaan nie net oor die ... oor verslaglewering van die eindproduk nie. Dit gaan oor verslaglewering en ook *werk* (emphasis) met die proses. So dit is hoe ek dinamiese assessering verstaan." (P-5)

> *"If I can use a metaphor: A way of assessment is to stand at the winning post and wait for the person to reach you and then you measure his time and see how fast he has run and you arrange him according to his time - whether he has come first, second or third or whatever, but that is not dynamic assessment. Dynamic assessment is when you run with him, looking what technique he is using, where the effective parts of his technique are and you boost those parts. You help him to boost himself, but there are also parts of the technique where you can make suggestions to him ... and where you can supplement to perhaps reach the winning post in another way that is more effective. So, it is not only about the ... about presenting a report about the product. It is about reporting and also* work *(emphasis) with the process. So, this is how I understand dynamic assessment." (P-5)*

Although participants were able to reflect on and provide definition-oriented understandings of dynamic assessment, some (P-3; P-7; P-8; P-12) indicated that it was difficult for them to distinguish between informal, qualitative assessment and dynamic assessment, as stated by the following participant:

> "People who didn't know how to assess, in terms of product ... they got a number and that's it! That child's got that number and that is ludicrous ... but by the time dynamic assessment came in, we were already unhappy for some time. Working in terms of comparative performances, profile analysis ... with a strong element of qualitative observation - *How did the child respond? How did the child risk? What courage was there? What were the issues that were causing difficulties for the child in terms of receptive/expressive language? Concepts? Issues?* There is no question about the necessity for a qualitative component to a product result. I looked at it at the time and it impressed me as being ... what we were trying to do anyway, but with standardised psychometric instruments, that was my impression." (P-8)

The statement above illustrates how the construct fuzziness of dynamic assessment also interacts with participants' understanding of it. As noted before, the confusion and difficulty in defining dynamic assessment may possibly be related to the fact that dynamic assessment is still a novel concept (P-2; P-11) in South Africa and that it is not yet part of mainstream thinking in the fields of education and psychology. It is illustrated in the following participants' responses:

> "Look, that was ... actually *is* (emphasis) still a novel concept, because the psychometry was still the predominant ... anything standardisation, standard test, group test ... Dynamic assessment was presented as an alternative. It wasn't and still isn't mainstream at all, but I think this conversation must become mainstream ... It's just a few people on the margins that are talking about this. It's not in the mainstream." (P-11)

> "Dynamic assessment has potential, but it hasn't kind of, I think, broken the surface really yet in the education circles in South Africa. You have your educational psychologists that are talking about dynamic assessment, but they don't really tell you *what* (emphasis) it is, you know." (P-7)

Having provided a background of participants' exposure to and training in dynamic assessment, as well as their knowledge and understanding of it, the focus will now shift toward their views on the relevance of dynamic assessment for their practices. Participants' brief exposure and insufficient training, in addition to the construct fuzziness of dynamic assessment, seem to explain why participants felt that their knowledge of dynamic assessment was limited, and were hesitant and cautious while sharing their understanding of it. This in turn seemed to affect their views on the relevance of dynamic assessment for their practice.

5.2.3 Educational psychologists' views on the relevance of dynamic assessment for their practices

Half of the participants reported that dynamic assessment was relevant to their practices. None of the participants felt that dynamic assessment was irrelevant to their practices. However, there was a balance between those participants who felt that it was "very relevant" and those who were unsure. All participants supported their views with reference to the advantages and disadvantages of dynamic assessment (see Table 5.5).

Dynamic assessment was viewed to be relevant, as it was reported to yield useful information about an individual's learning. Furthermore, participants stated that this information is also useful to parents and teachers. It was noted that dynamic assessment goes one step beyond static assessment in that it not only determines what the problem is, but also arms the practitioner with the knowledge, skills and expertise to devise and plan for appropriate interventions - dynamic assessment, therefore, starts where static assessments end. One participant stated the following:

> "So it's not just telling you where a child is falling, but it's telling you that as well as how they use information ... which is useful to put into practice what you're finding; because otherwise you found that and that's great ... that's where they are, but what now, what's the plan to shift areas that are difficult or are hard for that child?" (P-2)

Participants noted that dynamic assessment requires the practitioner to continuously monitor and adapt the intervention based on how an individual responds to a specific form of interaction/ mediation. It was noted that educational psychologists find the qualitative information yielded from these interactions particularly useful, as it was reported to illuminate difficulties on cognitive, affective and behavioural levels. Therefore, it can not only be applied to individuals experiencing learning difficulties, but also support those with social and emotional problems. One participant stated the following:

> "You know it can inform ... it's also very good for when children have, when they're experiencing emotional stuff ... psychological things as well, home difficulties ..." (P-7)

Participants who were unsure or unable to comment on dynamic assessment with regard to its relevance for practice, noted that they had not had sufficient exposure, knowledge and training to do so. Linked to this, others indicated that, even though they were knowledgeable on dynamic assessment, it was not their field of interest; therefore, it was difficult to say how it was relevant to their practices. The table below provides an overview of the theme and categories as they relate to participants' responses.

Table 5.3: Theme and categories related to educational psychologists' views on the relevance of dynamic assessment for their practices

CATEGORIES	THEME
• Yes • Unsure } Reasons	**1. Relevance for practice**

Half of the respondents (P-1; P-2; P-3; P-6; P-7; P-11) mentioned that they found dynamic assessment to be very relevant to their practices, as it provides useful and valuable information about how an individual learns. One educational psychologist (P-7) noted that Feuerstein's list of cognitive functions and deficiencies at the three phases of the mental act (discussed in chapter 2, also see **Appendix D**), namely 1) input (receptive level), 2) elaboration (processing level) and 3) output (expressive level) are essential and that these guide and assist with observation during an assessment – "you actually know what to look for" (P-7).

Participants in this group further noted that dynamic assessment was also particularly useful in situations where psychometric tests were not available for certain populations, as stated by one participant:

> "I think it's very strongly indicated where groups of children, particularly where disadvantaged groups, children from low socioeconomic backgrounds, score very low on your normal IQ and skills assessments ..." (P-7)

Furthermore, participants indicated that the principles and philosophy of dynamic assessment informed their practices (interaction with clients and colleagues) and that it was essential in helping a psychologist to obtain a more holistic and accurate picture of a particular individual:

> "It is very relevant, even if you use it in the way that I am using it, that is, the principles and philosophy of dynamic assessment. I think that is the starting point ... it helps to give me a more holistic picture of the child ... otherwise, I only have standardised scores that are normed ... It's a *crucial* (emphasis) aspect of the way that you see a child in terms of the education environment ... Can you feel my passion?!! Dynamic is crucial, because people aren't static

> beings. This whole sense that human beings can adapt to social circumstances ... that fascinates me!" (P-1)

As reflected in the statement above, participants who felt that dynamic assessment was very relevant to their practices were also very enthusiastic about it (P-1; P-4; P-6; P-7). Similarly, this enthusiasm was also evident in another participant's response:

> "I can't imagine a world without it. I can't imagine an assessment without looking beyond the parameters that you've been given. It just would be ... for me, it would be stultifying. It would not be looking at the child's best performance. So for me it's not only relevant, it's essential." (P-6)

On the contrary, some participants (P-3; P-5; P-8; P-12) mentioned that, even though they had theoretical background on dynamic assessment, they lacked the exposure and practical training (in the instruments and/or approaches); therefore, it was difficult for them to express their views regarding the relevance of dynamic assessment for their practices in particular:

> "You see, that's a tricky question to answer, because I think ... the emotionally correct answer is extremely relevant. I would be hesitant to claim that I use dynamic assessment, because I don't think I do ... I use some techniques ... on occasion when I have time or when it strikes me that I'm confused about what's going on here. I think I would have to have more information on how it would work and how I could do it realistically, because I think that's the awful truth of ... Most things can sound wonderful in theory, but it has to work practically." (P-12)

Although this participant stated that her knowledge of dynamic assessment was limited and that she would need more information to form an opinion, she pointed to an area where dynamic assessment could make a significant contribution:

> "One of the weaknesses of assessment in general at the moment is that educational psychologists don't always have the knowledge or the expertise in terms of intervention. So we're quite good at diagnosing what the problem is. The problem is based on what comes out of the static assessment basically ... So it's relatively easy I suppose, to say that a child has got a specific learning difficulty with ... And then ... how do you intervene? So what do we do? We don't *know* (*emphasis*) what intervention to put into place ... and even if we have worked as teachers, it's not to say that we know 'how' to remediate *'difficulty with phonologic awareness.'* So, I think it would play an essential role in giving specific ... making specific recommendations to address the difficulty." (P-12)

Another participant voiced her reservations and emphasised factors that had the greatest influence on her views of dynamic assessment:

> "Totally honest, I feel that it's very rich and thorough, but it's very, very time consuming. So that's why I think that it becomes your career as opposed to ... I don't know if you could incorporate it into what you do ... and that's where knowledge would be great, but I don't know ... I don't think it's for me, because of ... I think it requires ... or maybe it is for me? I

> don't have a trend. I think maybe if I knew more, that would change my answer ... but from the little that I do know ... I suppose now it's a mental block - it's too time consuming and I'm not going to be able to see it through ... That view would probably change if I was just doing it, instead of trying to do it as well as something else." (P-3)

Two other participants (P-9; P-10) stated that, although they were familiar with dynamic assessment, it was not their field of interest. Nonetheless, it was noted that there was a place for it in educational psychology practices:

> "I think it would depend on one's interests. If you're interested and it seems there is some potential and if it is a tool that one can clearly use ... It depends on where one is coming from and your background and how you have been trained in a particular model that's perhaps been emphasized more than other models. I don't know enough about it for me to ... I don't think it would be right for me to give an opinion about what the content of it is. It seems as though there is some potential, because if you can offer something ... I was fascinated by the fact that as this guy was working and as they were working with the children, they could give some kind of intervention. I don't know the long-term implications of the kind of changes ... whether it stayed with the child. I suppose one has to read that up and see." (P-10)

The uncertainty and hesitance in the above excerpt reveals how participants' knowledge and understanding of dynamic assessment affect their views on it. Limited exposure and insufficient knowledge seem to hinder the incorporation of dynamic assessment into educational psychology practices. Participants' views on the relevance of dynamic assessment for their practices to a large extent reflected their views on its relevance and potential in the South African context. This will be presented next.

5.2.4 Educational psychologists' views on the relevance and potential of dynamic assessment in the South African context

With regard to the relevance of dynamic assessment in the South African context, all participants indicated that dynamic assessment is "very relevant" and especially useful when assessing individuals whose culture and language are not that of the standardised test (i.e. that it is more culture-friendly). Two participants (P-2; P-6) noted that if one applied the principles, skills and strategies of dynamic assessment and used materials/resources from the surrounding area or the curriculum (i.e. CBDA), the assessment process could be cost-effective. Despite its reported relevance and future potential for educational psychology practices, participants confirmed it remains essentially underused and that research on dynamic assessment is limited in South Africa. This correlates with the research findings of Murphy and Maree (2006) and relates to challenges that educational psychologists were faced with when trying to implement it in practice.

Although participants noted that dynamic assessment is very relevant in the South African context, concerns were raised regarding its implementation in practice. One participant stated (P-8) that the

majority of dynamic assessment tests that he was familiar with, were mostly non-verbal instruments that still lacked a verbal component. Other concerns were linked to its implementation, especially in terms of time constraints (that is, the length of administration and availability of the practitioner) and consequent financial implications. To avoid repetition, this is discussed further in section 5.2.6. The table below provides an overview of the categories as they relate to the current theme.

Table 5.4: Themes and categories related to educational psychologists' views on the relevance of dynamic assessment in the South African context

CATEGORIES	THEME
• Very relevant, focusing on applications of dynamic assessment → has a lot of potential • Very relevant, but undervalued and underused • Relevant, but not realistic & practical	**2. Relevance and potential in the South African context**

All participants noted that it was "very relevant" and provided reasons for why they considered it to be relevant. These responses (i.e. 'reasons') were categorised into three categories, namely 1) responses focusing on the applications of dynamic assessment (all), 2) responses indicating that it remains "underrated and/or underused" (P-1; P-2; P-6; P-7; P-10; P-11) and 3) responses focusing on the practical implications and challenges regarding its implementation (P-3; P-8; P-12). Throughout this conversation, participants drew attention to the challenges educational psychologists were facing.

Participants mentioned that dynamic assessment has a very important role to play in South African schooling and tertiary education, as the population is made up of people from various cultures and different socio-economic standings. With regard to the applications of dynamic assessment, participants noted that it can be applied at various systemic levels, namely the *micro and meso levels*, for example a child or an adult with learning (P-3; P-4; P-6) and emotional difficulties (P-7; P-11), individuals with autism (P-3), parents (P-2, P-3, P-4, P-6, P-7) and teachers (P-2, P-3, P-4, P-5, P-6), and at the *chrono level*, namely that it is relevant across the lifespan: early childhood (P-2), school-going children (all), tertiary students (P-5), adults (P-4); and at the *exo level*, for example in institutions and organisations (P-1). In view of this, one participant noted that dynamic assessment is relevant in situations where standardised psychometric measures have not been standardised for a particular population. She stated that dynamic assessment is fairer than static assessment measures, as it is "culture free". She emphasised the relevance of dynamic assessment further by expressing concerns about the medical/deficit and positivist paradigms that still seem to govern the practices of teachers in South Africa:

> "Well I think it's hugely relevant, because it's culture-free. I think that makes it relevant worldwide. Especially in a country like South Africa, where we've got people from so many different cultural groups, who come from backgrounds that are so debilitating for them ... In South Africa we need culture-free forms of assessment. We need assessments to see how much we can move children. It shouldn't be that this assessment takes like twenty hours and it's very expensive ... then clearly nobody is going to do it ... but this would be the way to go ... and teachers even need to teach in that way. Like Feuerstein's saying, 'You turn that stiff finger back towards you.' Our teachers don't live that. If kids can't do something it's like, 'What's wrong with the children?' and that's also part of their education that they need to look at: What would be the best way for me to teach this? And if the kids aren't getting it, they need to find another way. Not, 'they're stupid' and 'why can't they get it?' and 'go home and learn it'. They need to find other ways of making meaning ..." (P-6)

Similarly, another participant also stressed the importance of dynamic assessment by drawing attention to the limitations of static assessment and denoting the various situations and contexts where dynamic assessment is relevant and can be applied:

> "I think the way the limitations of static testing manifested, was in the achievement levels of learners who were of lower socio-economic status, whose language wasn't the language of the instrument ... I felt that what it was testing wasn't really indicative of what the child was able to do at a later stage and one needed to acknowledge that. Also, these things are culturally bound and you can take it right back to Feuerstein, and the definition of cultural deprivation - that what is seen as a skill and problem-solving in one society, might not be in another ... Look, your learners from the lower socio-economic status ... and learners who have not had opportunities to those experiences that would normally predict high levels of intelligence; those learners can benefit, because it gives you a different way of viewing cognition and a different way of assessing potential too ... So it has relevance and also for learners whose languages aren't English, Afrikaans ... it can assist there." (P-7)

Another participant regarded dynamic assessment as more useful as static assessment, drawing attention to the learning and teaching contexts in South Africa and highlighting the fact that many learners have not had adequate learning experiences, and the contribution that dynamic assessment can make:

> "Well I think dynamic assessment can be more useful in a sense than a static assessment, because it's measuring ability to learn. Specifically in our country where a lot of children aren't exposed to ... they aren't extended, they don't have enough ... I think dynamic assessment is hugely useful and that it shows that if there is the right stimulation, the right input - what is the child's potential and ability to learn and to internalise and reproduce what you're teaching ..." (P-2)

With regard to the relevance of dynamic assessment in the South African context, one participant also gave a specific example of how the potential of dynamic assessment can be recognized in South African schools:

> "I think in South African schooling where it might also have some potential, although it is quite labour intensive ... If you can find the generics, you can do it in a school. You find the

> cognitive dysfunctions in a particular grade, with a particular part of the curriculum. You can then, for example, do maths interventions ... I find that the principles of dynamic assessment can even be utilised in a class context (*sense of excitement in voice*). The principles of mediated learning ... it's beautiful, although it is to train one-on-one. You can do it, you can ask them ... you can pick up, you can interact on a very meaningful level with a group of learners in a particular class in your interventions and where there is potential for them to assist each other with the thinking (*sense of excitement in voice*) ... So you lay out the steps for them. You're explicit about the thinking. You can ask them to check ... and check: ask them what are they thinking. It *can* (*emphasis*) work ... It takes a little bit of practice I suppose, to get use to it ... but like I said: When you have a specific curriculum chunk where there are specific problems in specific grades, it can be quite useful to use the principles of dynamic assessment in a classroom situation. Also *point* (*emphasis*) out to them, 'Look, you actually got that ... before you did that ... You were given this skill, this tool, you used this method and that's why it worked for you this time' ... etc." (P-7)

All participants agreed that dynamic assessment should be used in addition to and not instead of static assessment ("In our country you can never throw the one out, because you need them all ..." (P-2); "you need both" (all)) – as a complementary form of assessment. Although not referring to the term per se, all participants noted that static assessment provides useful information about the zone of actual development (ZAD). As stated by one participant, "it provides a baseline ... it helps me to determine where the child is at ..." (P-11). Owing to the limitations of static assessment, dynamic assessment was noted to provide information about the child's zone of proximal development and to assist with planning an appropriate intervention for a particular individual, as explained by the same participant:

> "One of the weaknesses of standardised assessments we have been trained with, is ... we can write good reports, but we can't write the intervention that accompanies that. So we can say all the things, all the beautiful things that, 'Yes, he functions at this level emotionally and behaviourally and cognitively and perceptually and all those kind of things', but we don't take that information and develop it into intervention, and I think that is the shortcoming of most South African psychologists ... as far as I'm concerned, because I haven't seen and I've worked throughout all the categories of registration with them. It's very difficult for them to translate their *findings* (emphasis) into an intervention, because the teacher asks, 'How does this relate to my practice in class?' or a parent, 'How does it relate to my practice at home?' Then the results, they don't know what to do ... how to program the results into an intervention appropriately. That is one of the shortcomings of psychologists. I think dynamic assessment opens that door very nicely, because it provides you with all the baseline information which becomes actually the intervention which can easily be formatted into an intervention." (P-11)

Similarly, participants who felt that dynamic assessment was relevant, but stated that it was undervalued and underused, raised concerns about the predominant medical/deficit and positivist paradigms, which still seem to govern and guide the practices of the majority of teachers and psychologists in South Africa. One participant stated the following:

> "I think it is underrated ... and crucial for every person working in our field, who work with children ... not only educational psychologists, but also ordinary class teachers, learning support advisors, learning support teachers ... They need to be trained in ways of assessing children to determine their ability to learn – 'how much we can stretch them' ... No matter where a child comes from, you can actually get a sense of whether this child can learn ... It is important to know what the child's potential is to learn, because with psychometric testing we often jump to conclusions very quickly to say, 'This child can't do anything, this child knows nothing', but what is his or her elasticity? How much can we pull the elastic before it breaks, and just before it cracks that you can say, 'Hey, this is the child's ability ... this is his/her elasticity, that's the child's ability'" (P-1)

Participants (P-3; P-4; P-5; P-8; P-12) who were sceptical about the broader implementation and recognition of dynamic assessment highlighted practical challenges that educational psychologists were facing. They noted that they were unsure how its potential could be realized in practice, denoting financial implications, time-constraints and "the demands of the system" (i.e. schools, parents, institutions demanding IQ scores). Some further questioned the utilisation of dynamic assessment in South Africa on a broader scale, due to reservations regarding its reliability and validity. One participant expressed his reservations about dynamic assessment and highlighted the broader contextual factors that affect the extent to which it potential is realized in the South African context:

> "One has to ask, 'Is this a test that is standardised for the South African population?' My understanding is that it is not, that it's an overseas test that's just been translated and used here. So how can you possibly use it for the South African population without even having standardised it? And then, how do you use this thing when the need is so great? I think at the moment there is a great need in our country and maybe again it's because I come from a system where resources are limited ... maybe the focus has shifted to us, almost mass producing results or assessments. It's difficult to say you know it's something that it will never be used on a grand scale in our country, unless I mean, research has come and showed us: Look, it can be done." (P-10)

The contextual factors highlighted in the statement above were also evident when participants shared their views with regard to factors that affect the extent to which dynamic assessment is incorporated into practice. To avoid repetition, it is discussed further in section 5.2.6.

Once participants had shared their views on the relevance of dynamic assessment for their practices, as well as in the South African context, the researcher further inquired about what participants perceived to be the major advantages and disadvantages of this approach to assessment.

5.2.5 Advantages and disadvantages of dynamic assessment

Table 5.5: Theme and categories related to the advantages and disadvantages of dynamic assessment

CATEGORIES	THEME
1. Advantage: • Nature and type of information that it yields • Intervention • Dynamic assessment vs. static assessment • Applications of dynamic assessment	**Advantages and disadvantages of dynamic assessment**
2. Disadvantages • Dangers of using it without adequate training • Contextual factors that affect the extent to which it is incorporated into practice • Labour intensiveness • Absence or lack of comparative results and standardised measures	

5.2.5.1 Major advantages of dynamic assessment

When asked about what they perceived to be the major advantages of dynamic assessment, participants' responses either related to the nature of dynamic assessment and the type of information yielded (all), the intervention that is included in dynamic assessment (P-1; P-2, P-3, P-4; P-5, P-6, P-7, P-9, P-11), a comparison between dynamic assessment and static assessment (all) or the applications of dynamic assessment (P-1, P-7). One participant noted that the major advantage of dynamic assessment is that it allows the practitioner to know what a child's potential to learn is and further elaborated on how this information can be used to support a particular child, as illustrated in the excerpt below:

> "Knowing a child's potential to learn is, I think, what would be the major advantage ... and having an idea of what it is that kind of allows them to grasp the concepts. I think that is so incredibly empowering. I think if teachers could know that, that would allow them to support those children or just teach in such a way that the child is not disadvantaged by an approach or a strategy. So I think that would be most advantageous." (P-12)

Similarly, another participant stated that dynamic assessment "unlocks potential", but focused on the nature of dynamic assessment and how it is advantageous above static forms of assessment:

> "Kyk, dit ontsluit potensiaal. Ek dink dit ... vir mense wat vir lank ... kinders wat kón 'ge-label' gewees het as iemand met 'n gemiddelde potensiaal of 'n ondergemiddelde potensiaal,

> kan deur dinamiese assessering die geleentheid kry om hulle grense te verbreed ... omdat ons hulle nie in 'n boksie sit nie. Ons hou die grense oop, ons sê: 'Die deksel kan gelig word' – So, dit gee geleenthede vir mense indien hul wel ... indien dit moontlik is. Vir my is dit die groot, groot voordeel - ons boks nie iemand in nie ... En dan gee dit vir ons inligting as dit reg gedoen kan word. Inligting van 'hoe' daai persoon geondersteun kan word. Dit is nie net 'hy moet geondersteun word' nie, want dit gee vir jou meer spesifieke inligting, en op die ou end ... wat met hom gaan werk ... en inligting oor hoe jy met hom gaan werk ... Maar dit is moeilik ..." (P-5)

> *"Look, it unlocks potential. I think it ... for people who have for long been ... children who could have been labelled as someone with an average potential or a below-average potential can get the opportunity through dynamic assessment to broaden their boundaries ... because we do not put them in boxes. We keep the boundaries open; we say, 'The lid can be lifted.' - So, it gives opportunities to people if they ... if it is possible. To me, it is the great, great advantage - we box nobody in ... And then it provides us with information if it is done correctly. Information about 'how' that person can be supported. It is not only 'he must be supported', because it gives you more specific information, and in the end ... what is going to work for him ... and information about how you are going to work with him ... But it is difficult ..." (P-5)*

With reference to the nature of dynamic assessment, another participant noted that it is respectful and if it can be internalised, it can instil a feeling of mastery and competence in an individual:

> "I think one of the key advantages is that it's a different paradigm. If it can be internalised, it's a paradigm of respectfully engaging with the capacities, the deficits, or strengths of people. Where the assessment approach or the teaching methodology can assist a young person to respectfully accept him/herself and say, 'I have something to offer' and 'I can discover it in this particular way' ... So it's almost a paradigmatic-level approach, for me. I'm not talking here about the technical processes, assessment and stuff ... Orientation is a different approach. So I think that is where the contribution can be made." (P-11)

Similarly, another participant highlighted the sense of competence and mastery and noted that it provides useful information to the assessor, but also focused on its interactive, non-threatening nature:

> "Well, I think it could be a very reasonable form of assessment ... It is non-threatening, it's more humane and more interactive ... Children experience success, because you work at their level and you try to push ... their zones of proximal development. You try to see how far they can extend themselves." (P-2)

Some of the advantages highlighted in the abovementioned response overlap and relate to factors that affect the extent to which dynamic assessment is incorporated into practice, which is further discussed in section 5.2.6.

Linked to the aforementioned responses regarding the nature of dynamic assessment, another participant noted that opportunities for success and feelings of mastery/competence in turn facilitate

the empowerment of the individual who is assessed. She also considered the intervention, which is built into the assessment, to be advantageous:

> "Obviously the child must feel empowered, because they're walking away not just being assessed, but also having learned ... and that is empowering ... It's positive reinforcement for the child and again, you're teaching as well as assessing, so ... those two." (P-3)

Responses of participants who considered the intervention(s) in dynamic assessment to be a major advantage were classified into three categories, namely 1) those who considered the fact that intervention is included in the assessment a major advantage (P-1; P-2; P-3; P-4; P-5; P-6; P-9, P-11), 2), those who particularly focused on the types of interventions that can be used (P-2; P-3; P-6; P-7) and 3) one participant who noted that one would not have to refer to a remedial teacher, as you will be able to do the intervention yourself (P-3).

With reference to responses that focused on the type(s) of intervention that can be offered to individuals, one participant emphasised the value and advantage of using mediation as a form of intervention during an assessment:

> "Just how a little bit of guidance put in the right direction, without giving an answer, allows and facilitates them to the next step ... which motivates them too, because you're not giving them answers. It's empowering for them too, because you help them to find the solution. You're giving them the tools ..." (P-3)

Similarly, another participant noted that the intervention offered by dynamic assessment is often also more understandable to parents compared to the language used during the feedback to explain the results and recommendations of static assessments. With regard to its application, this participant found it to be particularly useful when providing feedback to parents of children with learning difficulties:

> "If you assess statically, you've got to work out - what (emphasis) intervention ... You've got nothing to go by ... Whereas, with dynamic assessment you've got some principles to go by already. You've got some indicators that are already in the test, intervention and retest situation. Particularly for parents it is useful if you can tell them what (emphasis) it is that they need to do and give examples of that. It's given me an opportunity to assist children and also keep the belief up of parents. You're explicit with the parents, with openness ... and you could also give them strategies on how to assist the child. So it's giving parents hope and confidence ..." (P-7)

While reporting on the advantages of dynamic assessment, some participants also showed an awareness of the debate between static and dynamic assessment. Their responses were mainly focused on the comparison between these two approaches, as stated by one participant:

> "In qualitative assessment, such as dynamic assessment, you're engaged a lot more, so you can ask more questions. Whereas, with static assessment there is a formal structure where you ask questions as it is stated - and maybe the child didn't understand a word and therefore got it wrong. In a qualitative assessment, I mean dynamic assessment it's far more open to interpreting. So you can explain and use the word in a different way and then see - are they able to apply it?" (P-2)

The latter statement further illuminates the construct fuzziness of dynamic assessment, as some participants often used it interchangeably with the term 'qualitative assessment'. This was also evident in the response of another participant who compared these two forms of assessment. His response focused on the paradigm shift from product-oriented (i.e. quantitative, static) forms of assessment to process-oriented (i.e. qualitative, dynamic) forms of assessment. He considers the influential role of dynamic assessment in this shift to be a major advantage:

> "The most important thing (advantage) is that it alerted the people who were unaware of the need for a qualitative component to traditional assessment. That they had (emphasis) to pay attention to qualitative assessment ... Because it is much easier just to sit there and write down times and scores ... But to actually watch the child perform, to look into their eyes, to try and understand their feelings, are they more confident on this one, less confident on that one? What is creating the difficulty here? Is it a perseverance problem? Is there a confidence problem? Is there an oppositional issue? What's going on with this child? At the end of the day what we have to do, is providing information that's going to facilitate development, improve knowledge and understanding - in the child, and in the adults, teachers and parents so that that child's development can be supported and enhanced. Qualitative observation is essential ... and I'm afraid to say the traditional psychometric assessments were often done by people that weren't properly trained. It didn't often stress that qualitative aspect enough." (P-8)

Another participant noted that an additional advantage of dynamic assessment is that it can be applied on both micro and mesosystemic levels (such as, learners, teachers and clients). As explained by one participant in the excerpt below:

> "If you're doing a scholastic assessment, you do the first level testing and then you do some intervention and retest again to get a sense of where the child is and what strategies or intervention you can tailor to assist. But also, in the school situation, to be more economical, you'll find that there are patterns of cognitive deficits that children might have in a particular grade in terms of the curriculum - particularly for Maths and languages. Once you pull together a lot of teachers to analyse the kinds of mistakes that they make ... I think it's also a form of dynamic assessment and then say, 'Okay, let's try this intervention with this group of learners and see ...' So it's useful in an educational setting in a broader sense and in an individual, private practice sense as well." (P-7)

Similarly another participant also focused on the application of dynamic assessment on micro and meso levels, but further noted that it can also be applied on an exo level, as illustrated in the excerpt below:

> "I think it adds quality to a report, an assessment, the way of looking at a person ... It doesn't negate standardised scores ... those are important, but builds on that ... It also gives one the confidence that you are creating a more holistic picture of the person or situation. I think dynamic assessment can also be done with organisations of course. The organisation's ability to shift and move to change. So it's not only with people." (P-1)

The latter statement reveals an important finding, which was also highlighted by participants in earlier sections of this presentation, namely that both dynamic and static assessments are essential and should be used as complementary approaches to ensure a more accurate and holistic picture of an individual's intellectual functioning. This is discussed further in chapter 6.

5.2.5.2 Major disadvantages of dynamic assessment

Regarding the major disadvantages of dynamic assessment, participants' responses related to the dangers of using it without adequate training, the reported high level of expertise required to use it appropriately (P-4; P-5; P-6; P-8), contextual factors highlighting training (all), financial (all, except P-2) and temporal (all) aspects (that is, the time-consuming nature of dynamic assessment, the availability of educational psychologists) and the perceived labour-intensive nature of dynamic assessment (P-2; P-3; P-7; P-10; P-11). Concerns about the labour intensiveness of dynamic assessment related not only to its nature, but also highlighted the context in which educational psychologists work (for example, when/where (human) resources are limited, as well as the influence of temporal factors). Others (P-2; P-8; P-10) considered the absence and/or lack of comparative, standardised measures to be another disadvantage.

With regard to the dangers of using dynamic assessment without adequate training, one participant noted the following:

> "I think probably one of the major disadvantages would be the practitioner who doesn't know enough or who doesn't understand. Somebody who is under-qualified and under-experienced ... I think there are huge risks. You have to be exceptionally meticulous in the way you report this as well. You can't make sweeping statements. You need to tame your own enthusiasm with your education and experience." (P-6)

Similarly, another participant highlighted the risks and dangers involved and stated that dynamic assessment can do more harm than good when used without adequate training:

> "Ek dink die nadeel is, as jy nie genoegsaam opgelei is nie, kan jy 'n skoot in die donker skiet en dat jy mis skiet! Dat jy goed raai, wat jy nie eens substansiële bewyse voor het nie ... En dat jy eintlik die kind op daardie manier kan benadeel in plaas van bevoordeel. Jy moet baie, baie versigtig werk met daardie inligting wat jy gaan deurgee aan die persoon wat die kind gaan ondersteun dat jy nie valse hoop skep nie ... en jy moet ook nie die mens magteloos laat voel nie ... deur verkeerde inligting deur te gee nie." (P-5)

> *"I think the disadvantage is if you are not trained sufficiently, you can fire a shot in the dark and you can miss! That you can guess well about what you do not have substantial proof for ... And that you can actually harm the child in that way instead of benefit. You must work very, very carefully with the information you give to the person who is going to support that child so that you do not create false hope ... and you must not let the person feel powerless ... by giving through wrong information." (P-5)*

Another participant's response also related to the issue of inadequate training, but focused on the high level of expertise and the time that is required to use it appropriately. The participant stated the following:

> "People who are going to use this assessment need to be really, really well trained. They need to have a fundamental understanding of psychometry. They need to know how to assess in a scientifically valid and ethical manner ... and once you've got that, then you certainly can go do dynamic assessment, but to try and short-circuit the development of assessors, I think would be irresponsible." (P-8)

With reference to the aforementioned contextual factors, another participant considered the availability and accessibility to training, as well as the labour-intensive and costly nature of dynamic assessment to be the major disadvantages. The participant stated the following:

> "I think the cost factor ... and the fact that the training provided is quite intensive and costly. Also, the fact that there are very few people who are doing it. I only know about two people who are doing dynamic assessment. I have never heard of anybody else that's doing it. So is there perhaps a monopoly or is it something that's for an exclusive market? I don't know. So it's not easily accessible and the training is costly." (P-10)

Another participant highlighted the interplay between the temporal and labour-intensive aspects of dynamic assessment. Simply put, dynamic assessment is perceived by participants as complicated, extensive and difficult to master. Thus, it takes a long time to acquire. Furthermore, the administration of dynamic assessment takes a long time, making it labour intensive. As one of the participants stated:

> "It's time intensive; it doesn't work in a big class ... because it's quite intensive work and it's ... If you want to reach a kid, you will have to do this kind of thing in small groups, one to one. But I think the approach generally can benefit a big classroom, but of course time constraints are there in terms of what you can accomplish within a big group. So that's one of the big drawbacks of the approach." (P-11)

In addition to factors highlighted in this section, the next section will provide an overview of all factors that were reported by participants to have the greatest effect on the momentum, development and incorporation of dynamic assessment in educational psychology practices in South Africa.

5.2.6 Factors that affect the extent to which dynamic assessment is incorporated into educational psychology practices in South Africa

This section will consider factors that were reported by participants to have the greatest influence on the extent to which dynamic assessment is incorporated into educational psychology practices in South Africa. These factors were classified into four categories, namely 1) the nature of dynamic assessment, 2) training in dynamic assessment, 3) contextual factors and 4) field(s) of interest. These categories are not mutually exclusive, and it is important to note that some of the factors overlap with the advantages and disadvantages presented and discussed in the previous section.

Table 5.6: Theme and categories related to the factors that affect the extent to which dynamic assessment is incorporated into educational psychology practices in South Africa

CATEGORIES	THEME
1. Nature of dynamic assessment • Costly: Instruments/tools are expensive • Time-intensive: Constraints & availability of the practitioner • Labour intensiveness • High level of expertise • RODA vs. CODA debate • Validity issues • Construct fuzziness • Subjective nature	**Factors that affect the extent to which dynamic assessment is incorporated into educational psychology practices in South Africa**
2. Training: • Awareness • Access and availability • Exclusivity: Monopoly or elitism? vs. promotion • Financial implications • Amount of research & number of qualified trainers at tertiary institutions • Suggestions for future training	
3. Contextual factors • Philosophical: The battle of the paradigms • Practical: Demands and requirements of the system • Personal: Leaving the "comfort-zone"	
4. Fields of interest • Belief system: Personal & professional	

5.2.6.1 The nature of dynamic assessment

With reference to the nature of dynamic assessment, the following factors were most frequently reported to have both a positive and negative effect on the extent to which dynamic assessment is incorporated into practice, namely financial factors (P-4; P-6; P-7; P-10; P-12), time factors (all), labour intensiveness (P-2; P-3; P-4; P-5; P-7; P-8; P-10; P-11), the high level of expertise required to use it in an ethical and responsible manner (P-3; P-5; P-6; P-7; P-8; P-10; P-11), the RODA and CODA debate (P-5; P-8), validity issues relating to the subjective nature of dynamic assessment (P-7; P-8; P-10) and the fuzziness of the construct (P-2; P-3; P-7; P-8; P-12). It is important to note that there is interplay between these factors. The tables below provide an overview of the "units of meaning", as they relate to each of the aforementioned factors.

Table 5.6.1: Participants' responses denoting financial factors affecting the extent to which dynamic assessment is incorporated into practice

Factor relating to the nature of dynamic assessment	Units of meaning extracted from some participants' responses
Financial	**PROS**: "*I think you could use anything really. It depends on what concept you're trying to get across – numeracy, colour, shape ... You can find things from outside: sticks, bottle tops ... I think that's very useful in our country, because you don't have to have expensive resources to be able to assess dynamically ..."* (P-2); "*It shouldn't be that this assessment takes twenty hours and it's very expensive ... then clearly nobody is going to do it ..."* (P-6) **CONS:** "*Money!*" (P-6) "*It's not economical ... the training and instruments are quite pricey, very expensive*" (P-7); "*It's quite costly*" (P-10); "*How much time and money it would cost*" (P-12); *"Financially, if it takes so much longer, is it financially viable for the majority of the population? But it doesn't mean that there isn't scope for it. People are paying for other assessments anyhow ..."* (P-3); "*Time is money ... dynamic assessment requires a lot of systemic work ... going to schools, meeting with teachers, parents ... other professionals ... which takes up a lot of your time, and which you don't get paid for ... but that is also where your job satisfaction lies."* (P-4); "*Time ... cost ... medical aids only pay for two hours ... and there is no way that you can do an assessment in two hours. Just a straight assessment without getting fancy is four hours. So that's two and a half thousand rand that the parent is paying and to say, 'Let's do this and then come back next week and then we do something else and then carrying on ...' Just realistically, it doesn't happen. Realistically, it's difficult enough for parents to find four hours for a child to spend with you and to find the money to pay you. Ideally, I would love to have that child back for another session. I'd love to do more with them, but you don't get that opportunity. Not in private practice. I think if you were offering a free service, maybe you could ..."* (P-12)

With reference to financial factors that affect the extent to which dynamic assessment is incorporated into practice, the majority (all, except P-2) of participants considered the costly nature of dynamic assessment to be a major hindrance to its implementation in practice, as illustrated by their responses in Table 5.6.1. Participants' major reservations relate to the high costs of training, as well as the high costs involved when purchasing the instruments. Participants also emphasised the interaction and negative influence of temporal factors, contextual factors and the labour-intensive nature of dynamic assessment on the cost-effectiveness of dynamic assessment. Participants noted that this has financial implications for both the practitioner and the client. However, four participants (P-1; P-2, P-6, P-7) noted that dynamic assessment does not have to be an expensive endeavour necessarily – it depends how it is defined, understood and consequently implemented by the practitioner. Of the four participants, two (P-6; P-7) highlighted its cost-effectiveness when used in the school context (when making use of CBDA, as well as adopting a consultative role to inform and support teachers and parents), while the other two (P-1; P-2) noted that the philosophy and principles of dynamic assessment can be implemented without any cost. Linked to this, one participant (P-2) noted that materials from the environment and/or curriculum are inexpensive, easily accessible and can be used as "mediational tools".

With reference to time factors that affect the extent to which dynamic assessment is incorporated into practice, the majority of participants emphasised the time-intensive nature of dynamic assessment, but also drew attention to the challenges, demands and time constraints in their work contexts. However, participants noted that practitioners "will only find time when they make time". Two participants (P-2, P-11) further highlighted that dynamic assessment is still a novel and recent concept in South Africa. The fact that it is not yet part of mainstream thinking in the fields of education and psychology in South Africa seems to have a negative influence on the extent to which it is incorporated into practice. Table 5.6.2 below provides an overview of some participants' responses.

Table 5.6.2: Time factors affecting the extent to which dynamic assessment is incorporated into practice

Factor relating to the nature of dynamic assessment	Units of meaning extracted from some participants' responses
Time	**PROS**: "*It's not a time thing. Some people might see it like that ... , depends how you use it ... For me, I don't think more time, because it's a philosophy, it more a way of thinking, being ... a mindset ...*" (P-1); *"Jy kan vinnig sê: 'Ons moet die tyd kry', maar jy gaan mos net die tyd kry as jy tyd maak daarvoor. As mens opgewonde genoeg is oor 'n ding, dan maak jy gewoonlik ook tyd vir dit ... skuif jy van die ander goed bietjie opsy en maak tyd vir daardie goed."* (P-5); "You can quickly say, 'We must find the time', but you will only find time if you make time for it. If one is excited enough about something, one usually makes time for it ... you move some other things a little aside and make time for those things." (P-5) "*I'm very busy, but I will always make time for something on Feuerstein*" (P-6) **CONS**: Administration: "*It's time consuming*" (P-3; P-7); "*The programme is excellent, it's just very long*" (P-2; P-1); "*It's not a quick thing, it's an ongoing thing."* (P-3); *"It's much too long to do it properly, much too long for practical use."* (P-8) Availability of practitioner: " *... takes time getting through the stuff, and at the same time meeting requirements and demands of the job*" (P-1; P-3; P-4; P-8; P-11; P-12); "*I could have probably made an effort to seek out training opportunities, but the position I'm in - being at school ... I'm doing this part time and I'm studying ..."* (P-7) Other time factors: "*Still novel concept, has not been around for a long time* (P-2; P-11)

Whereas some participants highlighted the financial and time factors that hamper and/or facilitate the development and implementation of dynamic assessment into practice, others focused on the labour-intensive nature of dynamic assessment (P-2; P-3; P-7; P-8; P-10; P-11) and the high level of expertise (P-5; P-6; P-8) that is required to use it in an appropriate and ethical manner. Table 5.6.3 provides an overview of some participants' responses, as they relate to the aforementioned factors.

Table 5.6.3: Labour-intensive nature of dynamic assessment and the high level of expertise as factors affecting the extent to which it is incorporated into practice

Factors relating to the nature of dynamic assessment	Units of meaning extracted from some participants' responses
Labour intensiveness	**PRO**: "*It's obviously very thorough, very rich type of assessment."* (P-3) **CON:** "*It's quite intensive work*" (P-2; P-3; P-7; P-8; P-10; P-11) ; "*It's quite a cumbersome instrument ... it's 'bulky' ... the mediated learning experience and also Instrumental Enrichment, that's also quite 'intensive'" (*P-7)
High level of expertise	**PRO**: "*Not difficult if you use the philosophy & principles*" (P-1) **CONS:** "*When I was observing this process, it just seemed like such a complicated thing to actually master"* (P-10); "*Dynamic assessment is much harder to do than product assessment".*(P-8); "*Dit is nie 'n week se ding om dit self aan te leer en toe te pas nie. En ek dink dis waar party ouens partykeer van die wa afval, waar ek ook dan al halfpad van die wa afgeval het. Dis 'n* intensiewe *(emphasis) proses om dit rêrig reg te kry*." (P-5) "It is not something that you can learn to do or apply within a week's time. This is where many people fall off the wagon, myself included. It's an intensive process to master ..." (P-5)

Participants' responses focusing on the labour-intensive nature of dynamic assessment highlighted the contributions of dynamic assessment and the challenges when implementing it in practice. Participants reported that educational psychologists may be drawn to dynamic assessment, as it is considered as a very rich and comprehensive type of assessment. However, they stated that the labour-intensive nature of dynamic assessment, in addition to other factors (i.e. financial, time), poses further challenges with regard to its implementation in practice.

Furthermore, participants stated that the high level of expertise required to use dynamic assessment in an appropriate manner, is another hindrance educational psychologists are facing. Participants noted that they lack adequate training and experience, and further expressed concern about the fact that very few opportunities for training exist. This correlates with the finding of Elliot (1993 in Elliot, 2000), who highlighted that limited training opportunities can have a negative effect on the development and incorporation of dynamic assessment into practice. This is further discussed in the next section (5.2.6.2). The discussion will now move to the RODA vs. CODA debate and participants' reservations regarding the validity of dynamic assessment.

Table 5.6.4: The RODA vs. CODA debate and validity issues in dynamic assessment as factors affecting the extent to which it is incorporated into practice

Factors relating to the nature of dynamic assessment	Units of meaning extracted from some participants' responses
RODA & CODA debate	RODA: *"Safer way to practice - more directive, more structured, yields comparative results"* (P-5); "*To incorporate dynamic assessment, I would need comparative results"* (P-8) CODA: "*Subjective nature – what is remedial for one practitioner, may not be for another.*'" (P-4); "*Without adequate training can be used irresponsibly and unethically ... make sweeping statements with no theoretical grounding.*" (P-5; P-6); *"Too long for practical use, too unstructured, too subjective ... wishy washy, much harder than product-based assessment.*" (P-8); "*The problem was all along, the lack of benchmarks. I need to give people information that they can use in terms of practical interventions for children.´*(P-8)*; "Doesn't give you what is expected of a certain age ... certain milestones that are expected at that age." (*P-2)
Validity issues	*"It is very much an 'out of Africa thing'. It's not African ... it's not South African enough. Instruments are not standard ... not developed here ... have not heard of any that's been developed here ... There might be instruments, I speak under correction. Instruments are developed overseas and they're not your mainstream educational, tertiary educational sort of vehicles for teaching assessment."* (P-7); *"Is it even a tool that is recognised by the Health Professions Council as a standardised test?"* (P-10)

Participants' responses relating to the RODA vs. CODA debate acknowledged the value of both orientations, but also expressed reservations about each of the orientations. RODA was considered useful, as it yields comparative results and is more directive and structured in nature – which means that it can be more easily acquired than CODA. In view of this, RODA was considered to be "safer" than but not as holistic and comprehensive as CODA. CODA was considered useful, as it was reported to provide rich qualitative information. However, some concerns were highlighted with regard to the subjective and seemingly unstructured nature of CODA, the dangers when it is applied without adequate training and the absence or lack of comparative results. Some participants (P-2; P-7; P-8) also called for the development of more local RODA instruments to ensure the wider incorporation of dynamic assessment in educational psychology practices and address issues with regard to its validity.

The construct fuzziness and subjective nature of dynamic assessment was also reported to strongly influence the extent to which dynamic assessment is incorporated into practice. Table 5.6.5 provides an overview of some participants' responses as they related to each of the aforementioned factors.

Table 5.6.5: The construct fuzziness and subjective nature of dynamic assessment as factors affecting the extent to which it is incorporated into practice

Factors relating to the nature of dynamic assessment	Units of meaning extracted from participants' responses
Construct fuzziness	""*Qualitative, I mean ... dynamic ..."* (P-2; P-3; P-11) "*People talk about it, but they can't or don't always tell you what it is ..."* (P-7) *"I don't see how it is different from qualitative assessment ... from what we were already doing ... Dynamic assessment would certainly give you the opportunity of seeing: this child* can *(emphasis) develop understanding,* has *(emphasis) got the agency and the capacity to deal with problems and to progress in the problem's solution ... This child has got ability, perseverance ... or this child's ability looks such that maybe some kind of developmental program that is 'softer' than the primary academic effort, would be better for them ... but very, very wishy washy very, very unstable ... dangerous to make an opinion. I would be concerned about providing an opinion based on such tenuous facts."* (P-8)
Subjective nature of dynamic assessment	Nature: "*Dynamic assessment is subjective, so it's open to your experience with that child ..."* (P-2) **CON:** *"I need to work on the basis of some sort of validity, other than just a personal opinion ... and sometimes we only have a personal opinion, but then it must be identified as such ... there are still perceptions and there are still opinions, but they are very tentative and very tenuous and I don't enjoy working with kids where I can't form an opinion that is based on something more stable than just my perception."* (P-8)

Participants' responses relating to the construct fuzziness of dynamic assessment reflected conceptual confusion (Kaniel, 2001). Research findings pertaining to the construct fuzziness of dynamic assessment correlate with the research of Elliot (1993 in Elliot, 2000), who noted that one reason why the construct fuzziness manifests in conceptual confusion may be related to the fact that dynamic assessment does not consist of a single set of procedures that can be easily acquired over a short course. The fact that limited opportunities for training exist further adds to the conceptual confusion of dynamic assessment.

Although participants considered the qualitative information obtained from dynamic assessment to be useful, one participant (P-8) noted that he "needs something more stable than his perception". This illustrates how participants' views and practices are still influenced by the predominant positivist and static paradigms. The fact that many of the dynamic assessment approaches are based on qualitative (not mainstream), rather than quantitative (mainstream) conceptions (Elliot, 1993 in Elliot, 2000) further hinders its implementation in practice.

Now that factors relating to the nature of dynamic assessment have been identified and discussed, the focus will now shift to an investigation of the relationship between participants' training and the extent to which dynamic assessment is incorporated/ implemented in practice.

5.2.6.2 Training in dynamic assessment

Insufficient training was reported to be the main reason for dynamic assessment not being translated in practice. Concerns were particularly raised in terms of awareness, availability and access to training (i.e. most of the courses being overseas, very few local courses), the financial implications (i.e. training is very expensive), as well as the "type" of training offered at tertiary institutions. The findings correlate with Lidz's (1992b) research. Although lecturers at tertiary institutions in the Western Cape are informing their students about dynamic assessment, participants have noted that the "training" lacks a practical component with adequate supervision. Furthermore, it was noted that there are very few trainers/practitioners in the Western Cape that are able to provide and/or assist with supervision. As was noted earlier in Chapter 3, it is evident that more research on dynamic assessment is needed, but there are currently very few lecturers/trainers that know enough about the models and procedures to conduct or stimulate this research. Participants noted further that most experts in dynamic assessment in South African are nearly retired, and highlighted the importance of transferring this knowledge and skills to a younger generation of educational psychologists. One participant stated the following:

> "That the candle isn't just carried by a little enclave of older people, which I think has happened in this country. You know, the 'movers' and the 'shakers' in Feuerstein's work are in their fifties and sixties ... and I think it needs to quickly be handed to the younger generation." (P-6)

Linked to this, questions were also raised about the perceived "exclusivity" of the training. Two participants noted the following:

> "There are very few people who are doing it. So is there perhaps ... a monopoly? Or is it something that's for an exclusive market? I don't know. It's not easily accessible." (P-10)

> "It seems to me that the candle is being carried by a group of people who ... maybe just haven't had ... I don't know if it's their personalities or ... to sell it really ... and you've got to be careful how you sell things ... because sometimes people feel threatened." (P-6)

In view of the above, participants noted that more needs to be done in terms of marketing and making dynamic assessment more accessible to educational psychologists and other professionals. One participant noted that current dynamic assessment practitioners and trainers need "to make

dynamic assessment enticing, so that people would want to read further and find out more about it" (P-3). Similarly, another stated the following:

> "Yes, I'm saying, 'Make Feuerstein sexy!' (Laughs). Make it that everybody is dying to know more about this person!" (P-6)

The marketing of dynamic assessment is especially important because some participants perceived it to be "much harder than standardised psychometric assessment" and also raised questions about its cost effectiveness. Participants noted that dynamic is time and labour intensive, and further requires much systemic work (that is, liaising with parents, teachers and other role players), which further leads to financial implications. This further highlights the significant role that the context in which educational psychologists work play in the realization of dynamic assessment in practice.

One participant noted that she works in an environment where people are interested and open to developments in research and noted the following:

> "If there is a dynamic assessment model that works and can be applied within students at tertiary institutions we'd be interested to know more about it." (P-5)

On the contrary, other participants noted that it is challenging to use dynamic assessment in the context in which they work, as the system has certain requirements and demands that need to be met. In addition, there is also the challenge of trying to find a balance and harmony between one's work, personal life and professional vision – in other words, leaving one's "comfort zone". This links with Carl Haywood's (2001, in Tzuriel, 2001) remark that one reason for the most persistent problems in the dissemination of dynamic assessment may be related to "the reluctance of practicing psychologists to give it a try, to step beyond the comfortable and familiar, to take additional training, and invest the time and effort necessary to master these exciting methods" (p. x).

With regard to training offered in dynamic assessment, the following factors were most frequently reported as having an effect on the extent to which dynamic assessment is incorporated in practice, namely awareness (all), availability and access (all), the type of training offered (P-4; P-5; P-8), exclusivity of training (P-6; P-10), financial implications (P-3; P-6; P-7; P-10) and, finally, research and the number of qualified, accredited trainers at tertiary institutions. This section is concluded with participants' suggestions for future training. The table below provides an overview of the "units of meaning" relating to each of the aforementioned factors. These categories are not mutually exclusive.

Table 5.6.6: Factors relating to the training offered in dynamic assessment

Factor	Units of meaning extracted from participants' responses
Awareness	**Limited awareness:** *'Awareness, create awareness about it and then make it enticing, so that you want to read further and see how you can incorporate it and workshops* (P-3) *;* *'I have never heard of or received an invitation to attend a dynamic assessment workshop, since I have been in practice past 5 years'*(P-4); '*Very little'* (P-5;P-8; P-9; P-12) *I get no e-mails about dynamic assessment. I'm aware of dynamic assessment, but I'm not aware of specific dynamic assessment tools. I don't even know where I go about looking it up actually. I mean you can go on the internet. Often that's quite limited information.*(P-12)
Availability & Access	**Limited availability:** *It's the training ... to just have it available really ...'* (P-3); *"Limited, stringy ..." (P-11)* "*Where are the courses?" (*P-1)*; "No supervision or support groups in terms of dynamic assessment" (*P-1); "*Needs to be more training and more material easily available"* (P-2); *"It's not something that you hear about often ... its specific people that have come up to me with it ... it's not something that's in the air, that's general"* (P-3)*; "I think it's been poor. I never hear of opportunities ..."* (P-6); *"It's not out there in the market with the readily available ... as your other instruments or other theoretical perspectives"* (P-7), *"It's not local and we've got very few trainers trained ... The people, like mediated learning, Instrumental Enrichment ... there are only a few names that you can mention like, Skuy ... of the people that train in South Africa ..."* (P-7) **Limited access:** *"Universities can also play an important role in making dynamic assessment more accessible to educational psychologists, e.g. courses/ supervision etc ... in order to bring research and practice 'closer together'"* (P-4); *"The training is also expensive and sometimes not accessible to 'ordinary' psychologists ... often overseas ..."* (P-7)
Type of training offered / required to become a practitioner	**No supervision** (all, except P-5); **Some supervision** (P-5): *"Oe, dit is baie beperk. Dit was die frustrerende deel van toe ons ons praktiese deel gedoen het. Daar was nie regtig iemand wat supervisie daaroor kon gee nie. So, ek dink toe het ons ... die meeste van ons dit net eenkant toe geskuif ... Dis soos terapie - dit gebeur nie in 'n kwessie van 'n paar lesings nie. Dit is 'n proses wat jy oor en oor mee betrokke moet wees ... terugvoer gee, terugvoer kry en reflekteer totdat jy dit 'vang'."* (P-5) "Oh, it is very limited. It was the frustrating part when we were doing our practical part. There really was nobody who could supervise it. So, I think we then ... most of us just moved it aside ... It's like therapy – it does not happen within a matter of a few lectures. It is a process in which you must be involved time and again ... give feedback, receive feedback and reflect until you 'catch' it." (P-5) Components of training: *"Training of educational psychologists need to have a stronger 'base'/foundation in remedial teaching ... there is not enough on learning support, mediation etc. in Master's training course."* (P-4); *"static assessment still dominates training"* (P-11) Amount: "*There needs to be more training."* (all, except P-9; P-10) Novel & recent*: It's relatively new ... I've been working for four years-when I studied ... it was kind of being built in at that point* (P-2) Nature of training & requirements: *You can't just run a course. You've got to get training besides being a psychologist; you got to be certificated to do it ... You've got to get an accredited trainer to receive training from. So there is quite a lot of admin and effort involved to eventually qualify as a dynamic assessment practitioner ..."* (P-7)

Factor	Units of meaning extracted from participants' responses
Exclusivity of training vs. Promotion & marketing	Exclusivity: *"There are very few people who are doing it. So is there perhaps ... a monopoly? Or is it something that's for an exclusive market? I don't know. It's not easily accessible and the training is costly."* (P-10) *"It seems to me that the candle is being carried by a group of people who ... maybe just haven't had ... I don't know if it's their personalities or ... to sell it really you know ... and you've got be careful how you sell things, you know ... because sometimes people feel threatened ..."* (P-6) Promotion and marketing: *"Have to make it enticing, so that you want to read further ..."* (P-3); "*Yes, I'm saying, 'Make Feuerstein sexy!' (Laughs). Make it that everybody is dying to know more about this person. That the candle isn't just carried by a little enclave of older people, which I think has happened in this country. You know, the 'movers' and the 'shakers' in Feuerstein's work are in their fifties and sixties ... and I think it needs to quickly be handed to the younger generation*." (P-6)
Financial Implications	"*Training is very expensive"* (P-6; P-7) *and "mostly overseas"* (P-3; P-7); *"Just too costly for practitioners to invest"* (P-10)
Research & limited number of qualified, accredited trainers	Research: *"Maybe it hasn't been researched enough ..."* (P-10); "*I suppose because it hasn't turned out commercial instruments as hard and fast ... as other theories have ... The training in itself and when you work with an instrument or a model that you train people in - that in effect translates it into practice and you need research and people to do that ... and if that is being done from academia, I don't know ..."* (P-7) Limited availability of accredited trainers: *"Also, the fact that there are very few people who are doing it"* (P-1; P-2; P-3, P-6; P-5; P-7; P-8; P-10; P-11). *It's not local and we've got very few trainers trained ... You know the people, like mediated learning, instrumental enrichment ... there are only a few names that you can mention like, Skuy ... you know of the people that train in South Africa ...*" (P-7); *"What the push is in the universities and teacher training colleges - if they do teach it and how well they teach it and if they've got people that really know what they're doing."* (P-6)

In view of factors pertaining to the training in dynamic assessment (i.e. that it is limited, novel and recent), one participant further expressed her view about the training offered at the tertiary institution where she studied as follows:

> "Opleiding van dinamiese assessering geskied nie in 'n week se tyd nie hoor. Dis amper 'n kursus op sy eie wat geoefen, geoefen en geoefen en verfyn en verfyn moet word en wat in internskaptyd nog met spesifieke supervisie moet plaasvind. Dis nie iets wat jy in 'n boek lees en 'Wow, hier is ek 'n dinamiese assesseerder' nie ... en my persepsie is, dis hoekom baie mense dit los. Dis nie oor dit nie werk nie, dis oor ons nie gemaklik voel met die kennis wat ons het om dit effektief en verantwoordelik te gaan toepas nie." (P-5)

> *"Training of dynamic assessment does not occur in a week's time. It is almost a course on its own that must be practiced, practiced and practiced and refined and refined and that must occur with specific supervision during the internship period. It is not something you read in a book and 'Wow, here I am, a dynamic assessor' ... and my perception is, that is why many*

> *people leave it. It's not about the work; it's because we do not feel comfortable with the knowledge we have to go and apply it effectively and responsibly."* (P-5)

In view of the above, another participant noted that tertiary institutions have a fundamental role to play with regard to the training and "recruitment" of practitioners, and subsequently, the development and future of dynamic assessment. He further highlighted the dominant position that standardised assessment still has in the South African context:

> "Unless tertiary institutions make a significant shift towards training people ... that (i.e. approach to assessment) will not change in the general populous of psychologists, unless they start believing it as well ... Psychometry and psychological assessment in this country is a swear word, in terms of the history, where it comes from and for whom it was developed. Standardised assessment, the 'dominant' is still in the position as far as training is concerned at different institutions. I don't think they have made significant shift towards dynamic assessment as a critical tool ... Then it has to go through in terms of accreditation and acceptance from the medical establishment if you want to run a practice for yourself ... So those are some of the handicaps that, as far as I'm concerned, inhibit the development of dynamic assessment 'actively' a bit." (P-11)

Similarly, another participant also highlighted the important role of tertiary institutions in South Africa with regard to training students in dynamic assessment. She emphasised the importance of training by professionals who are experts in dynamic assessment, not merely knowledgeable about it, as stated in the following excerpt:

> "It depends on what the push is in the universities and teacher training colleges - if they do teach it and how well they teach it and if they've got people that really know what they're doing. So it's only when people are properly trained and have good trainers that they can actually put it into practice ... It needs to be taught in the universities and training colleges." (P-6)

These statements begin to illuminate contextual factors reported by participants to significantly affect the development of dynamic assessment in South Africa.

5.2.6.3 Contextual factors

With reference to contextual factors that affect the extent to which dynamic assessment is incorporated into educational psychology practices in the Western Cape, participants' responses were classified into three categories, namely 1) philosophical - "the battle of the paradigms", 2) practical - "the demands and requirements of the system" and 3) personal - "leaving the comfort zone" (P-5; P-6; P-9). Responses relating to the first category specifically focused on the gradual international paradigm shift from a medical/deficit perspective towards a systemic, social-constructivist perspective that informs educational psychology practices in the South African context. The first category affects the second and third category. Responses in the second category

focused on the practical and systemic challenges that educational psychologists are facing in terms of the incorporation of dynamic assessment into the context(s) in which they work. The third category focused on personal factors that influence the rate at which it developed and was incorporated into practice.

In view of the aforementioned paradigm shift, two participants stated that, although educational psychologists and other professionals are talking about and using the ecosystemic and social-constructivist 'lingo', the majority still relies on and uses the language of the medical/deficit paradigm, as illustrated in the excerpts below:

> "You actually need to think about the theory you know, because common perceptions and understandings, conceptualisations and IQ in particular, it's 'common knowledge'. It's become stereotypical knowledge and it's the dominant way of thinking. Dynamic assessment has potential, but it hasn't kind of I think broken the surface really yet in the education circles in South Africa. You have educational psychologists that are talking about dynamic assessment, but they don't really tell you what (emphasis) it is." (P-7)

> "We talk about Howard Gardner, that we need to consider multiple intelligences, things like ... can the child learn, the dynamic assessment of pre-test, intervention and post-test. You might be talking that, but when it comes to referring the child, we fall back on static testing ..." (P-1)

In view of the latter statement, all participants reported that the medical/deficit and "product-focused" paradigms are still the predominant perspectives from which the majority of professionals and institutions in the fields of education and psychology operate. In turn, this has an effect on professionals' familiarity with dynamic assessment and their willingness to "step beyond the familiar". One participant highlighted the dangers of "looking" at an individual only from a medical/deficit perspective:

> "I often get teachers who say, 'this child can do *nothing* (emphasis)! – I'm always amazed and in disbelief, because they fail to look at the broader context. So, we're not unpacking what's going on in society and we often see the problem in the child ... not the problem is in the system ..." (P-1)

Another participant noted that he tries to align teachers to the dynamic assessment model, but noted the powerful influence of and challenges that the outcome-/product-based paradigms pose to educational psychologists and other professionals with regard to its implementation:

> "I try inside here, to get our teachers to align to that kind of model (um), but there is not a 'state of readiness' for it yet. Its outcome driven - that outcome must be reached." (P-11)

Elaborating on this, participants noted that the current state of affairs will not change, unless "people change their thinking". One participant stated the following:

> "Mindset changes that still have to be made ... whereby society has to accept difference and respond to it in an appropriate way rather than from a kind of pitiful, medical way ..." (P-7)

Similarly, another participant also called for mindset changes, but emphasised how the predominant paradigms operative in South Africa also influence what is demanded by clients (i.e. parents):

> "I think that schools or parents ... their mindsets need to change ... in that they want to know: *Show me a graph. Where is my child doing well? Where is my child doing badly?* I don't know if theyor the school system or people's perception has shifted enough that dynamic assessment would be good enough just as it is, on its own. I don't know. You know if you get a referral, often they want you to do a JSAIS. *What are the ages? Where does the child function?*" (P-2)

The statements above shed some light on how the demands and requirements of the system in which educational psychologists work can boost, hamper or prevent the translation of dynamic assessment into practice. Similarly, two other participants further commented on "dependence" of the broader professional system on static scores and its current view on dynamic assessment:

> "In a practice if you have to submit a claim through medical aids, it's very difficult for them to accept the dynamic assessment descriptions. They lean more towards the standardised instruments that are recognised. Dynamic assessment is not so much recognised in the practice field for medical purposes. Also, in terms of talking to fellow professionals in the field it's very difficult for them if you write a report dynamically. Unless you write it for a review consultant or teacher, it helps that kind of practice much more, but if you have to write it for a GP or a school for access it's very difficult and unlikely that they will accept and consider dynamic assessment as legitimate, authentic ... If it's not norm-referenced, to what you do you compare?" (P-11)

> "The expectation in organisations like this for psycho-educational assessments is definitely not about dynamic assessment ... If you think about what is required for learners to get into a special school, it's about meeting the requirements of the job. I would always put in something about the child's capacity to learn, but that wouldn't be a requirement. People (for example, teachers, parents, psychiatrists) are not interested in that, they want hard facts – 'what's the IQ score?" (P-1)

Some participants (P-1; P-4; P-5; P-7; P-9) noted that contextual obstacles and challenges should not be used as an excuse for not being open to dynamic assessment. One participant stated the following:

> "You're trying to get through your work, but this (i.e. dynamic assessment) is a philosophy that I've always held ... and it runs parallel in terms of what I think of assessment and the kind of psychologist I want to be ... If there is a person who must take responsibility for this not happening for school psychologists in the districts, I also have to stand accused, because I haven't made enough of an effort to organise training opportunities. You know, many of the dynamic assessment trainers are also getting older, but that is not an excuse, we can actually organise something. The problem is the 'drive' for it and the fact that it is not a requirement also plays a role. It's not on the education system's agenda, so there is no support around it ...

> the education system at the moment is preoccupied with things that don't have space for dynamic assessment to come in ..." (P-1)

One participant indicated that she works in an environment that is open to change and interested in new research development. Within this context, dynamic assessment is incorporated only by the use of the LPCAT. However, she noted that the institution is open to suggestions and ideas from experienced dynamic practitioners and trainers, as illustrated in the excerpt below:

> "Ons gaan so dinamies as wat ek huidiglik vir jou gesê het, maar dit is nie dat daar 'n aversie daarteenoor is nie. Ek werk in 'n omgewing wat geweldig 'oop' is vir nuwe voorstelle en nuwe idees. En ek dink as ons kan saamwerk, as ons kan werk met 'n ekspert wat kan vir ons idees gee van oor hoe kan ons dit gebruik, 'why not'?" (P-5)

> *"We are going as dynamically as I have told you now, but it is not that there is an aversion towards it. I am working in an environment that is very 'open' for new suggestions and new ideas. And I think that, if we can work together, if we can work with an expert who can give us ideas on how we can use it, why not?" (P-5)*

In addition to the philosophical and practical factors that were reported to affect the extent to which dynamic assessment is incorporated into practice, the focus will now shift toward personal factors that were highlighted by participants as having an influence.

With reference to these personal factors, a few participants (P-1; P-5; P-9) emphasised the challenge of leaving one's comfort zone and having the courage to step beyond what is familiar and "safe". The influence of the broader context and systems in which educational psychologists work was highlighted again. One participant stated the following:

> "Mens raak mos maar nou gemaklik met wat jy doen (lag) ... en wat makliker werk. So, 'n deel daarvan is ons is gemaklik daarmee. Umm, dat mens dalk nog nie luister na die behoefte nie, dat jy dalk blind is vir die behoefte, dat jy dit nie raak wil sien of weet nie, maar dat jy ook net nie so bewus is daarvan nie. As daar hard aan die deur geklop word deur kampvegters van dinamiese assessering, gaan jy moet luister ... en gaan jy waarskynlik meer oop wees om dit te gebruik ... en as jy meer blootgestel kan word ..." (P-5)

> *"One becomes comfortable with what one is doing (laughs) ... and that works nicely. So part of it is that we are comfortable with it. Um, that one perhaps does not yet listen to the need, that you are perhaps blind to the need, that you do not want to see it or know about it, but also that you are also not so aware of it. If supporters of dynamic assessment are going to knock hard on the door, you must go and listen ... and probably you will be more open to using it ... and if you can be exposed more ..." (P-5)*

Similarly, another participant noted that age can be a significant factor influencing the ability of organisations to change and leave their comfort zones:

> "As ek nou net dink hoe dinge gedoen word in die skool waar ek werk ... Daar is baie min nuwe bloed daar. So, dit is maar hoe dinge gedoen word oor die laaste twintig jaar, en daar is

> sisteme in plek by die skool, jy weet, die verwysingsstrukture en so aan wat daar is. Ek weet nie hoeveel ruimte daar regtig is vir umm ... om so te werk nie." (P-9)
>
> *"If I now think of how things are done at the school where I work ... There is very little new blood there. So, that is but how things have been done over the last twenty years, and there are systems in place at the school, you know, the reference structures and so on that are there. I don't know how much room there really is for umm ... to work like that." (P-9)*

Linked to this, another participant also drew attention to the fact that many professionals do not change the ways in which they work:

> "It shouldn't be something interested people come across twenty years after they have been practising, because a lot of people don't ever look for anything further ... they just carry on ... keep doing things in the same way that they've always done them." (P-6)

Finally, one participant noted how the demands and requirements of the system in which one works do not always allow room for individual professionals to pursue their own fields of interest:

> "I think I would put myself in the category of people who feel that they want to get more involved in this area ... someone who's got a passion for this area, but have just let it drift away and met the requirements of the system ... and the system can also push you into a direction, but you cannot use excuses like that all the time. You have to say, 'How about me and my training?' You need to take responsibility for your own development ..." (P-1)

The final part of this section sheds some light on the link between educational psychologists' fields of interest and the extent to which they are drawn to dynamic assessment.

5.2.6.4 Fields of interest

There was a direct link between educational psychologists' fields of interest and the extent to which dynamic assessment is incorporated into their practice (fields of interest are illustrated in Table 4.1 in chapter 4). Participants whose fields of interest formed part of the social-constructivist paradigm were more drawn to dynamic assessment, whereas those whose fields of interest formed part of the positivist paradigm were more sceptical. Participants noted that, in order for dynamic assessment to be more widely recognised as a complementary form of assessment, it has to be internalised and become part of educational psychologists' personal and professional belief systems. In view of this, one participant emphasised the importance of professionals having vested interest in dynamic assessment:

> "There is vested interest in it (meaning static testing). There is huge money that goes into developing these assessment tests, so there is vested interest in continuing to teach people at tertiary level in what is available for whatever reason. So, I think if dynamic assessment wants to get a foothold it must start to demonstrate there is a vested interest in it. That it can, it does

> make an impact, but it can also be accepted professionally, for what it brings out. I don't think there is a lot of trust in it." (P-11)

Another participant noted how dynamic assessment aligns with other theoretical frameworks from which she practices and stated that it is part of her personal belief system:

> "There also has to be a willingness in the spirit of the person, to look at different ways of doing something. I think that's why my practice ... my therapeutic approach is in a narrative way, and looking at solution-focused ways which ties in very much with the spirit that has been imbued with Feuerstein. I feel very true to what I do and I love what I do ... It has to be part of your essence." (P-6)

Similarly, another participant noted that she is drawn to dynamic assessment, as resonates with her ideas and personal beliefs about human beings:

> "You know for me, the principles, because it's a socially appealing process, socially appealing orientation - that you don't write people off ... That actually ties in with my belief about human beings." (P-7)

One participant noted that dynamic assessment forms part of his professional belief system:

> "This is a philosophy that I've always held and it runs parallel in terms of what I think of assessment and the kind of psychologist I want to be ..." (P-1)

Another participant further stated that there are many similarities between dynamic assessment and the strength-based paradigm from which he operates:

> "We work within a particular model, a strength-based model, so you could say that is a kind of dynamic way of assessment. The model that we have been trained in as psychologists, is a more 'pathological', deficit-based model ... 'find out what is wrong with the kid' *not* (emphasis) find out 'what is going well with the kid' or 'find out what is the kid's strength'." (P-11)

He further noted that professionals whose practices are predominantly informed by the medical/deficit- and static assessment paradigms will be more sceptical about the value of dynamic assessment and its incorporation into practice.

Educational psychologists' personal interests play a significant part in the realisation of dynamic assessment in practice. Two participants (P-9; P-10) mentioned that that they are not interested in psycho-educational assessment in general because it does not resonate with them – and that dynamic assessment therefore does not appeal to them. They further noted that the nature of their practices are more "therapeutically focused". This is illustrated in the excerpts below:

> "Ek is nou maar in my derde jaar vandat ek my praktyk begin het, maar noudat ek meer kliënte begin sien, kan ek agterkom dit gaan definief meer terapie wees. Ek is nie so 'into' die

asseserings nie. Ek doen dit, maar ek kan nou nie nie sê ek vind dit ongelooflik interessant nie (Lag)." (P-9)

"I am now but in my third year since I started my practice, but now that I start seeing more clients, I realise it is definitely going to be more therapy ... therefore, I am not so into assessments. I do it, um ... but I cannot say that I find it unbelievably interesting (laughs)." (P-9)

Similarly, the other participant noted that he prefers doing therapy to assessment, but highlighted that it is nonetheless essential. He noted that his exposure to dynamic assessment did not motivate him to find out more about it. The type of training that is required was also reported to be a concern:

"I'm interested more in the therapy side than the actual assessment side ... although there is a need for assessment. I must confess, I didn't take a liking to it. Maybe it's because I didn't know enough about it. I just never took an interest. I never bothered to read up after the workshop or after the presentation. I suppose part of it is because of the training that is offered ..." (P-10)

In view of participants' responses regarding the aforementioned factors, the researcher was also curious to find out what their views were with regard to the incorporation of dynamic assessment into their practices. The next section provides an overview of participants' views on this.

5.2.7 Educational psychologists' views on the incorporation of dynamic assessment into their practices

In view of the preceding thematic categories, participants' views on the incorporation of dynamic assessment will be discussed next. Participants' responses were categorised into three categories, namely 1) those who indicated that they are in favour of using dynamic assessment (P-1; P-2; P-4; P-5; P-6; P-7; P-11), 2) those who indicated that they are not in favour of incorporating it into their practice (P-9; P-10) and 3) those who were either uncertain or sceptical, and noted that they would need more information before a decision can be made (P-3; P-8; P-12). An overview of the theme and categories is illustrated in the table below, followed by an overview of participants' responses, as they relate to each of the categories.

Table 5.7: Theme and categories related to educational psychologists' views on the incorporation of dynamic assessment into their practices

CATEGORIES	THEME
• In favour • Not in favour • Scepticism / Uncertainty } Reasons	**Views on the incorporation of dynamic assessment into practice**

Table 5.7.1: Outline of participants' responses regarding the incorporation of dynamic assessment into practice

In Favour	Not in Favour	Uncertain / Sceptical
• Already uses it in practice, would like to expand skills and knowledge to strengthen DA practices • Would like to incorporate it, but does not have adequate training and experience to use it in an ethical and responsible manner • Contextual factors make it difficult to incorporate it into practice	• Not field of interest • Training • Financial implications • Contextual factors	• Need more exposure and training before can decide • Subjectivity vs. objectivity • Awareness & training • Financial implications • Contextual factors

Most participants indicated that they are in favour of using dynamic assessment in their practices. In this group of responses, some (P-1; P-2; P-5; P-6; P-7) indicated that they already use dynamic assessment in their practices, while others (P-4; P-8; P-12) indicated that they would like to use it, but do not "know enough about it at this stage to incorporate it" into their practice. They mentioned that they would first like to read up on it, attend a workshop or speak to a dynamic assessment practitioner (i.e. supervision, networking), to decide on how it can be incorporated.

As discussed in earlier sections, the primary reason for educational psychologists not wanting to incorporate dynamic assessment into their practices appears to be related to their field(s) of interest. Furthermore, concerns were expressed about the financial implications of the training and the instruments/tools. It was also perceived to be time consuming and labour intensive. Concern was also expressed about the fact that there were no local instruments that have been accredited or "approved" for utilization in the South African population.

At the end of the research interview, participants were asked to share their unique experiences of the conversation. These are presented in the final section of this chapter.

5.2.8 Educational psychologists' experiences of the research interview

Participants noted that the research interview allowed them to reflect on their own practices, dynamic assessment and, in some instances, the extent to which it aligns with their personal and professional vision. Participants stated that it made them think about and become more aware of the paradigms that influence their practices. The majority was keen and interested to find out more

about dynamic assessment and inquired about the possibility of interest/supervision groups, networking with other interested professionals, reading material and information on training courses. Finally, the need for and potential of dynamic assessment were highlighted. The table below provides an overview of participants' responses.

Table 5.8: Themes and categories related to educational psychologists' experiences of the research interview

CATEGORIES	THEMES
• Refreshed memory • Paradigms and "structures" that "govern" and influence beliefs and attitudes • Participants' personal and professional vision	**1. Self-reflection on current practices**
• Motivation to read up • Enquired about further training opportunities: reading material, continuous professional development courses • Networking, interest/supervision groups	**2. Curiosity to know more about dynamic assessment**
• Implications if not implemented • The need for, potential and future of dynamic assessment	**3. Reflection on dynamic assessment**

5.2.8.1 Self-reflection on current practices

All participants noted that the research interview made them think about their current assessment practices and the paradigms that govern and the systems that reinforce these paradigms in practice (all). One participant (P-1) further noted that it made him think about his personal and professional vision. Participants also stated that talking about dynamic assessment refreshed their memory of it. One participant noted the interview forced her to think about her assessment practices and dynamic assessment, as stated in the excerpt below:

> "Ek besef nou dat ek dink nie baie daaroor nie ... Dis ook gevaarlik as mens nie gaan sit en dink daaroor nie ... Dit het my nou teruggevat na daar toe ek geswot het en ek het nou nogal weer ‘n bietjie gedink oor dinamiese assessering en ek gaan dalk ietsie lees daaroor. Net om weer ‘n bietjie te kyk wat is aan die gang en wat sê Feuerstein en hoe assesseer ek ..." (P-4)
>
> *"I realise now that I don't think much about it ... and it's also dangerous if one does not sit and think about it. It took me back to when I was swotting, and to me that was ... I once again*

> *thought a little about dynamic assessment, and I thought I was going to read something about it. Just to see again what is going on and what Feuerstein says and how I assess ..." (P-4)*

Similarly, another participant stated that it refreshed her memory of dynamic assessment, but further noted that the conversation made her think "differently" in terms of how one assesses. She acknowledged the influence of the static paradigm, but further stated that one should always act in the best interest of the client – which requires flexibility in both one's thinking and actions:

> "Skud so bietjie die stof af ... (lag). Dit laat jou net weer bietjie anderster dink, want dit is maklik om te gaan toets en te vertel. Dis die maklike pad om te volg, maar jy perk jouself inen so ook jou jou kliënt ... Ek dink ‘n mens moet oop bly vir ander tegnieke ... en in hierdie omgewing gaan dit mos nou juis oor, waar lê die leemtes en hoe kan jy help." (P-5)

> *"Shake off the dust a little (laughs). It makes you think differently again ... because it is easy to test and to tell, and it is really the easy way to follow, but you can ... you fence yourself in, and you can fence your client in that way ... I just think one should remain open to consider other techniques ... and in this environment it goes about where the gaps are and how you can help ..." (P-5)*

Another participant explained how the conversation made him think about the extent to which his current practices are aligned with his personal and professional vision:

> "When one goes into a field - this is your vision for yourself ... and then along the way you meet the requirements ... And what you’ve done is brought some of that back to me and I hear that little voice saying, 'Hey, watch it, boy ... you are not sticking to your vision for yourself' (laughs). One of the big things for me was that, dynamic assessment fell into that vision and then along the way it gets discarded almost. Not ... it’s there, man! And you use it as a as a mindset and a philosophy, but you don’t take the extra effort to go and say to one of the dynamic assessment practitioners, 'Come on, you must do this for us.'" (P-1)

At the end of the research interview, many participants (all except P-9; P-10) also indicated that they were curious to find out more about dynamic assessment.

5.2.8.2 Curiosity to know more about dynamic assessment

The majority of participants' (P-1; P-3; P-4; P-5; P-6; P-7; P-8; P-12) responses reflected an eagerness to find out more about dynamic assessment. Some (P-1; P-3; P-4; P-5) noted that they were keen to read up about it to refresh their memories. As participants were often exposed only briefly to dynamic assessment, many (P-1; P-3; P-4; P-5; P-6; P-7; P-11; P-12) wanted to know where they could access reading material, courses and find out about the possibility of joining a dynamic assessment interest/supervision group to learn more about dynamic assessment and strengthen or obtain information and acquire skills to ease its implementation in practice. One participant stated the following:

> "I think what would be useful, as we speak, would be if one can know about interest groups, so that you can strengthen your own practices and your own working ... within dynamic assessment ..." (P-7).

Linked to this, another participant further emphasised the importance of establishing and/or making supervision more accessible to educational psychologists:

> "Tyd en supervisie. Dis soos terapie - dit gebeur nie in 'n kwessie van 'n paar lesings nie en dit is 'n proses wat jy oor en oor mee betrokke moet wees ... terugvoer gee, terugvoer kry en reflekteer totdat jy dit 'vang'" (P-5)

> *"Time and supervision. It's like therapy - it does not happen in a matter of a few lectures, and it is a process in which you must be involved time and again ... give feedback, receive feedback and reflect until you 'catch' it" (P-5)*

Some participants (P-1; P-3; P-4; P-6; P-7; P-12) also expressed the need to network with other educational psychologists interested in dynamic assessment to find out more about how they make use of it in practice, increase their awareness and strengthen their own practices. One participant stated the following:

> "I would be interested to know how many of my colleagues use it. We do similar jobs, so it would be interesting to know what is being done in this field, in my field, with dynamic assessment and why is it becoming more pertinent." (P-12)

Some (P-1; P-3; P-5; P-8; P-12) were also interested in knowing more about the instruments and tools available. Two specifically stated that they were either interested in research-oriented instruments (RODA) (P-8) or clinically-oriented instruments (CODA) (P-5). This is illustrated in the excerpts below. One participant expressed a need for more research-oriented dynamic assessment instruments.

> "If there are instruments out there that meet my requirements, then I would be interested to see them ... but I would need that statistical foundation, that norm-based kind of stuff ... There has to be, from my practice, from my point of view ... without a norm I could do very little ... there are still perceptions and there are still opinions, but they are very tentative and very tenuous and I don't enjoy working with kids where I can't form an opinion that is based on something more stable than just my perception." (P-8)

On the contrary, another noted that she would be interested in clinically-oriented dynamic assessment instruments:

> "So as jy nou 'n dinamiese assesseringsmodel kry vir 'n tersiêre instansie wat werk hoor dan ... laat weet ons. Behalwe nou vir die LPCAT, wat so half nog neig na die ander kant (meaning static assessment, RODA) toe." (P-5)

> *"So, if you find a dynamic assessment model that works for a tertiary institution, then hear ... let us know. Apart from the LPCAT, which is still leaning towards the other side (meaning static assessment, RODA)" (P-5)*

The discussion of their experiences of the research interview and reflection on their own practices brought participants to reflect on dynamic assessment.

5.2.8.3 Reflection on dynamic assessment

When reflecting on dynamic assessment, some participants (P-1; P-4; P-11; P-12) drew attention to the implications when it is not incorporated into practice. One participant noted the implications of not using dynamic assessment, yet she also drew attention to the practical realities and challenges that educational psychologists are facing, often leaving them in a "Catch 22" situation, as stated in the excerpt below:

> "I just feel a little bit disadvantaged, because I'm not an authority on ... far from ... knowing a lot about dynamic assessment ... When you start thinking about it you feel kind of, 'Hell, I should have probably been using it ...' and sometimes it is an easy excuse to say time and money is an issue, because ... one has to make a plan ... except it doesn't always happen. So then you feel kind of caught between this idea of there are these opportunities out there and then one wonders how many children are disadvantaged because it's not being used?" (P-12)

Similarly, another participant further emphasised the importance of dynamic assessment becoming recognised more widely in educational psychology circles:

> "I think this an exciting journey that you are evolving on. For me this conversation must become mainstream. It's not mainstream psychology, this conversation ... and if it can become mainstream, I think psychologists, especially educational, can better assist our colleagues with the kind of curriculum challenges that they are posed with in the classroom. They won't just give reports ... that push out funny concepts that nobody understands in the classroom, or numbers ... but they will be able to develop meaningful interventions. What I often see is just, 'this is my findings, now you must go and find out what it means for you.' I think we as psychologists in the main ... are doing ourselves a disservice by not being able to assist there. That's just the take for me on the particular matter. This conversation must become mainstream. It's just a few people on the margins that are talking about this." (P-11)

Responses again highlighted the potential, value and usefulness of dynamic assessment, but drew attention to challenges educational psychologists are facing with regard to its implementation in practice.

5.3 CONCLUSION

The findings suggest that educational psychologists in South Africa found dynamic assessment to be relevant to their practices. Participants reported that it yields valuable information about learning (on cognitive, affective and behavioural levels) and that it is especially useful for assessing learners

from diverse backgrounds for whom no standardized tests exist. However, they experienced some obstacles in implementing dynamic assessment. These were related to insufficient training, too few experts to assist with supervision, expertise residing in too few retired or nearly retired persons, as well as the perceived labour-intensive and time-consuming nature of dynamic assessment. In addition to participants' exposure to and training in dynamic assessment, the construct fuzziness of dynamic assessment appears to have had the greatest influence on participants' views.

Having explored participants' views through the discussion of the eight thematic categories, a clearer picture could be obtained regarding educational psychologists' exposure to and training in dynamic assessment, their knowledge and understanding of it, their views on the relevance of it for their practices and in the South African context, the major advantages and disadvantages of dynamic assessment, factors and challenges that affect the extent to which it is incorporated into practice and participants' views on the incorporation of dynamic assessment into practice. It is then necessary to make recommendations for theory, further research and practice. This, as well as the strengths and limitations related to the study, will be discussed in chapter 6.

CHAPTER 6

RECOMMENDATIONS AND FINAL REFLECTIONS

6.1 INTRODUCTION

In this final chapter of the study, recommendations for theory, further research and practice are made. The limitations and strengths of the study are discussed, and the findings of the study are considered in view of these strengths and limitations. Conclusions that can be derived from this study are drawn. The chapter is concluded with the researcher's final reflections.

6.2 RECOMMENDATIONS FOR THEORY, RESEARCH AND PRACTICE

In view of the research findings, the following recommendations are made:

6.2.1 Recommendations for theory and suggestions for further research

Owing to the fuzziness of dynamic assessment and conflicting sub-theories, the theory of "dynamic assessment" needs to be refined, and contextually relevant theories for the South African context need to be developed. The following suggestions for further research need to be made:

A thorough literature review revealed that research on dynamic assessment in South Africa is currently very limited in comparison with other domains in the fields of education and psychology. This was confirmed by the participants of the study. Therefore, further research on dynamic assessment is imperative to ensure its development and sustainability.

In this study, the researcher has endeavoured to give a detailed description of the views of educational psychologists regarding the relevance of dynamic assessment for their practice. The sample was small, which inhibits the transferability of the research. This suggests that further research on a larger sample from the population is advisable.

In view of the research findings, it will also be necessary to consider the extent to which dynamic assessment is incorporated into courses (e.g. B.Ed.; M.Ed. Psych.) at tertiary institutions in South Africa. Further related to training in dynamic assessment, it will be illuminating to have a study explore a broader base of educational psychologists' awareness of dynamic assessment, as participants in this study were familiar with or had received some form of training in it. Similar

studies and/or surveys can also be conducted to explore the “accessibility and availability" of training in South Africa.

Furthermore, a replication of this study in different contexts is also advised, to further report on the status and future of dynamic assessment in South Africa. Using both qualitative and quantitative methodologies, other areas of interest may include:

- further research to evaluate and review the extent to which training presented at tertiary institutions equips educational psychologists with the knowledge and skills to incorporate it in practice;
- factors that affect the extent to which dynamic assessment is translated and incorporated into practice in South Africa;
- educational psychologists' knowledge and understanding of dynamic assessment;
- applications of dynamic assessment in the South African context;
- the status, potential and future of dynamic assessment in South Africa; and
- realizing the potential of dynamic assessment: Bridging/narrowing the gap between research and practice.

6.2.2 Recommendations for practice

6.2.2.1 Training in dynamic assessment

Through the literature and the research findings, it became clear that dynamic assessment is relevant and has potential for the practices of educational psychologists and in the South African context. Therefore, training needs to be more accessible and more broadly available to interested professionals. Furthermore, many participants expressed a need for supervision and opportunities to gain practical experience in dynamic assessment. Several participants were curious and motivated to find out more about dynamic assessment. They indicated that they would like to become part of a dynamic assessment interest/supervision group and that that they were keen and interested in attending courses on dynamic assessment. Therefore, tertiary institutions and dynamic assessment practitioners need to work in partnership and pool resources to find ways to ensure that networks and interest/support groups are established.

In addition, programme coordinators at tertiary institutions and trainers and practitioners of dynamic assessment should collaborate to revise current training programmes to ensure that students not only have a solid theoretical foundation in dynamic assessment, but that they also receive the necessary exposure and practical experience to be able to use it in a responsible and

ethical manner once they are working in the field. Continuous professional development courses on dynamic assessment also need to be presented and be more readily available.

6.2.2.2 Promotion and marketing of dynamic assessment

In view of the first recommendation, it is imperative that more experienced dynamic assessment trainers and practitioners transfer their knowledge and skills to a younger generation of professionals to ensure the continuity and longevity of dynamic assessment in South Africa. This means that more time and effort will need to be invested in the marketing of dynamic assessment and in initiating campaigns to raise awareness and inform professionals about it.

6.2.2.3 The development of local research-oriented dynamic assessment (RODA) instruments and training in clinically oriented dynamic assessment (CODA)

Participants mentioned that a high level of expertise is required to apply and use dynamic assessment in the way it was intended by its developers. They expressed concerns regarding the "user friendliness", subjective nature and perceived unstructured nature of dynamic assessment. It was indicated that, in order for dynamic assessment to be transferred from theory into practice, more **local** RODA instruments that are more structured and objective in nature and that will yield comparative results, such as age equivalents and normative information, need to be developed. More practitioners also need to be trained in the use of clinically oriented dynamic assessment, such as the Instrumental Enrichment Programme.

6.2.2.4 The complementary role of dynamic assessment

Owing to the reported value of dynamic assessment, it is recommended that it be incorporated not instead of static forms of assessment, but in addition to them. Participants emphasised that both types of assessments are valuable and necessary to ensure that clients and families are provided with information, tools and support that are required to learn effectively and develop optimally.

6.2.2.5 Need for a paradigm shift in various contexts

Although the literature denotes a paradigm shift in educational psychology practices over the past few years, many participants indicated that one of the reasons why dynamic assessment is not being translated into practice may be related to the fact that it is not part of "mainstream thinking" (P-11) in education and psychology in South Africa. As a result, many systems (such as the parents, schools, other professionals and institutions) still demand scores and results. Furthermore, it was noted that the language predominantly used in the fields of education and psychology still reflects that of the medical/reductionist paradigm. If the potential of dynamic assessment is to be realized in

the South African context, it is imperative that we change our mindset and our thinking. For those who have already changed their thinking, greater implementation into practice still need to follow.

6.3 LIMITATIONS AND STRENGTHS OF THE STUDY

Although qualitative research allows for in-depth studies and can involve a small group of participants, the findings of qualitative research and therefore of this study, are not generalisable to populations outside the Western Cape. Research with larger groups can increase the transferability of the findings. In doing future research, it may be valuable to conduct focus group interviews to assist the researcher in exploring the topic in depth through group discussions. Focus groups can convey key information and can be an efficient way to collect a wide range of information. This will enable the researcher to identify possible information-rich participants who will illuminate the questions under study by yielding insights and in-depth understanding.

The educational psychologists in this study provided insight into the status of dynamic assessment in the context of educational psychology practices in the Western Cape. It provided an overview of educational psychologists' views regarding its relevance for their practice. It also shed some light on factors that appear to influence the "speed" and the extent to which dynamic assessment is translated into and implemented in practice. In turn, this may facilitate self-reflection at various systemic levels, as well as raise awareness about dynamic assessment and what it has to offer to professionals working in the fields of education and psychology in South Africa.

6.4 CONCLUSION AND FINAL REFLECTIONS

The final chapter of this presentation briefly highlighted the limitations and strengths of the study. Recommendations for theory, further research and practice were also made.

The research findings confirmed that dynamic assessment is still a novel concept to educational psychologists and that it is beginning to carve a niche for itself in South Africa. Reid and Valle (2004) note that, to say that we are positioned by discourses does not mean we are determined by them. The dynamic assessment procedure of pretest, intervention and posttest can also be applied in this sense.

The present study can be considered as a pretest in the sense that it sheds light on the discourses that influence and dictate educational psychology practices in the Western Cape.

The current study shows that the development of dynamic assessment in South Africa is still greatly influenced by the static assessment and medical/deficit paradigms that govern the operation of the majority of contextual systems in which educational psychologists work. Although this is the

current state of affairs, interested professionals need to collaborate to make sense of the information obtained during the pretest and use this information to plan appropriate interventions to ensure that we are informed by our past, but not determined by it.

It is imperative to facilitate the development of dynamic assessment and ensure its wider incorporation into educational psychology practices. It is a continuous process of assessment, intervention and feedback.

The realization of the potential of dynamic assessment is dependent on the next step. On a theoretical level, more needs to be done in terms of research, especially in developing theories that are relevant to the South African context. On a practical level, more needs to be done in terms of marketing and promoting dynamic assessment to raise professionals' awareness of it and making training more accessible to interested educational psychologists and other professionals. Finally, there needs to be vested interest in dynamic assessment for it to be recognised as a complementary form of assessment that, together with standardised psychometric measures, is able to provide a more holistic and accurate picture of an individual's functioning.

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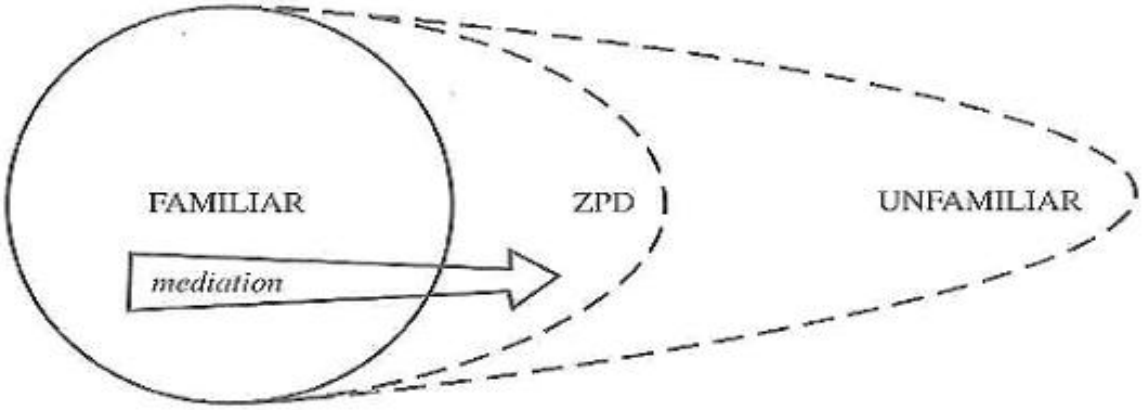
APPENDIX A

Important names in the history and development of dynamic assessment	
1920s - 1930s	Binet, 1921; Buckingham, 1921; Dearborn,1921; Thorndike, 1924; DeWeerdt, 1927; Kern, 1930; Penrose,1934; Andre Rey, 1934
1940s	Woodrow,1946; Simrall, 1947; McPherson, 1948
1950s	James, 1953; Yates, 1953; Wiseman & Wrigley, 1953; Vernon, Wiseman, 1954 Dempster, 1954; Heim & Watts, 1957, Volle, 1957; Haeussermann, 1958; Ortar, 1959
1960s	Schuchman, 1960; Jensen, 1961, 1963, 1966, 1969; Semler & Iscoe, 1963; Maier & Schneirla, 1964; Zigler & Butterfield, 1968; Bortner & Birch, 1969; Haywood & Gordon, 1969
1970s	Budoff; Haywood, 1970; Ozer, Richardson, Tannhauser & Smith, 1970; Waugh, 1970; Green & Rohwer, 1971; Rohwer,1971; Jedrysek, Klapper, Pope & Wortis, 1972; Camp, 1973; Hutson & Niles, 1974; Ozer & Richardson, 1974; Sewell & Severson, 1974; Filler, & Chatelanat,1975; Ross, 1976;Severson, 1976;Haywood, 1977; Kratochwill & Severson, 1977; Vygotsky, 1978; Campione & Brown, 1978; Dillon & Carlson, 1978; Ozer, 1978; Feuerstein, 1979; Carlson & Wiedl, 1976, 1978, 1979, Stott.
1980s	Carlson & Wiedl, 1980; Feuerstein, 1980; Anastasi, 1981; Glaser, 1981Messick, 1981; Meltzer, 1984; Bethge, Carlson & Wiedl, 1982
1990s onward	Büchel, Carlson, Deutsch, Elliot, Falik, Farrel, Feuerstein, Freeman, Fuchs & Fuchs, Greenberg, Grigorenko, Guthke, Hasselbring, Haywood, Hessels, Jensen, Jepsen, Kahn, Kaniel, Karpov, Kozulin, Lauchlan, Lidz, Miller, Pena, Rand, Resing, Robinson-Zaňartu, Samuels, Seng, Sternberg, Stringer, Swanson, Tzuriel, Vye, Wiedl, Yeomans

APPENDIX B

Representation of Vygotsky's Zone of Proximal Development (ZPD)



Source: Donald, Lazarus & Lolwana, 2002, p.71

APPENDIX C

Representation of Feuerstein's Mediated Learning Experience (MLE)

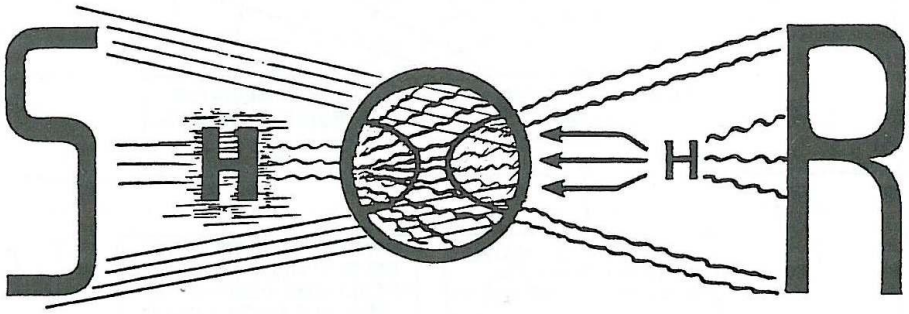


Figure 1
Mediated learning experience model (MLE)

Source: Feuerstein & Feuerstein, 1994, p.7

APPENDIX D

COGNITIVE FUNCTIONS

INPUT PHASE
GATHERING INFORMATION

Cognitive Function	Deficient Cognitive Function
1. Clear Perception	Blurred and Sweeping Perception
2. Systematic Exploration	Impulsive Exploratory Behavior
3. Precise and Accurate Labeling	Lack of Appropriate Labels
4. Well-developed Orientation in Time and Space	Lack of, or Impaired, Temporal and/or Spatial Orientation
5. Conservation of Constancies	Lack of, or Impaired, Ability to Conserve Constancies
6. Capacity to Consider More Than One Source of Information	Inability to Use Two or More Sources of Information at Once
7. Need for Precision, Accuracy, and Completeness in Data Gathering	Lack of Precision, Accuracy, and Completeness in Data Gathering

ELABORATION PHASE
PROCESSING OR USING INFORMATION

Cognitive Function	Deficient Cognitive Function
1. Accurate Definition of the Problem	Inadequacy in Recognizing and/or Defining the Problem
2. Selection of Relevant Cues	Inability to Select Relevant vs. Irrelevant Information
3. Internalization of Information	Lack of, or Impaired, Internalization
4. Planning Behavior	Lack of, or Impaired, Planning Behavior
5. Broad Mental Field-Remembering	Narrowness of the Mental Field
6. Recognizing and Understanding Relationships	Lack of a Need for Establishing Relationships *EPISODIC GRASP OF REALITY
7. Spontaneous Comparative Behavior	Lack of Spontaneous Comparative Behavior
8. Categorizing	Inability to Categorize
9. Inferential-Hypothetical Thinking	Lack of, or Impaired, Inferential-Hypothetical Thinking
10. Using Logic to Arrive at and Defend Conclusions	Lack of a need for Pursuing Logical Evidence
11. Spontaneous Summative Behavior	Lack of a Need for Summative Behavior
12. Adequate Verbal Tools	Inadequate Verbal Tools (for elaboration)

OUTPUT PHASE
EXPRESSING THE CONCLUSION

Cognitive Function	Deficient Cognitive Function
1. Using Clear and Precise Language	Egocentric Communications
2. Thinking Things Through Before Responding	Trial and Error Behavior
3. Waiting Before Responding	Impulsivity
4. Staying Calm	Blocking
5. Precision and Accuracy in Communicating Data and Information	Lack of Precision and Accuracy in Communicating Data and Information
6. Clear Visual Transport	Deficiency in Visual Transport
7. Adequate Verbal Tools	Inadequate Verbal Tools
8. Projection of Virtual Relationships	Difficulty in Projecting Virtual Relationships

* *This deficiency can be related to several cognitive functions.*

SOUTHEASTERN CENTER FOR THE ENHANCEMENT OF LEARNING

Wood, Scott, Taddeo, 2000
Adapted from Organization of Dots p. 20 and other versions of Cognitive Functions and Deficient Functions published by Reuven Feuerstein.

Source: Lomofsky & Young, 2010

Descriptions of Cognitive Functions and Dysfunctions at various Phases of the Mental Act

INPUT PHASE (IP):

IP	Cognitive Function	Cognitive Dysfunction
1	**Clear and accurate perception:** to focus attention long enough to perceive relevant details clearly	**Blurred and sweeping perception:** the inability to select relevant details, poor attention to form, size, shape and space.
2	**Systematic exploration of a learning situation:** person is goal oriented and takes time to gather and assess all the information needed to define a problem	**Impulsivity:** person rushes into tasks in a disorganized and haphazard way and has poor investigational skills
3	**Precise and accurate receptive verbal tools:** uses language as a tool to receive information as well as for reasoning in social interactions.	**Impaired verbal tools:** may misinterpret instructions and questions or have poor comprehension skills that will hamper the interpretation of incoming language.
4	**Well-developed sense of spatial concepts:** can adequately assess the relationships among objects or people	**Impaired spatial concepts:** lacks labels for positions and describing relationships among objects or people
5	**Well-developed sense of temporal concepts:** understands how the past influences the 'now', the present and the future	**Lack of sense of temporal concepts:** perceives events out of context, does not understand the outcomes of actions or events.
6	**Well-developed ability to conserve constancies:** the capacity to conserve the constancy of objects despite variations in attributes	**Impaired ability to conserve constancies:** may have a tendency to focus only on immediate appearance of an object without forming connections or generalizing to the abstract
7	**Precise and accurate data gathering:** selects only the relevant information to process a problem	**Impaired data gathering:** presents work that is incomplete, too detailed, lacks logical form or misses salient points
8	**A well-developed capacity to consider more than one source of information:** is able to examine more than one aspect of a situation and to find links between objects and events	**Impaired capacity to consider more than one source of information:** considers only some of the information and recalls disjointed pieces of information, is unable to form a meaningful whole

ELABORATION PHASE (EP):

EP	Cognitive Function	Cognitive Dysfunction
1	**Accurate definition of a problem:** recognition that a problem exists, to define the problem requires a clear formulation that indentifies the need to solve the problem	**Inadequacy in defining a problem:** lack of awareness that a problem exists and poor definition of the problem
2	**Selection of relevant cues:** choose and use the appropriate information needed to solve a problem or task	**Inability to select relevant vs. irrelevant information to solve a problem:** may be related to an incorrect or unclear definition of the problem
3	**Spontaneous comparative behaviour:** creation of relationships between isolated bits of information and spontaneously search for similarities and differences among items	**Lack of spontaneous comparative behaviour:** difficulty in carrying out comparison in a spontaneous and automatic manner
4	**Broad mental field:** the ability to focus on, retain and use two or more sources of information simultaneously	**Narrowness of the mental field:** severe limitation in combining and coordinating information needed for solving problems
5	**Summative behaviour:** Add numbers, objects and events which are perceived as groups, with a clear goal in mind (amount, frequency, sequence)	**Lack of need for summative behaviour:** not deem it necessary to quantify or summarise anything
6	**Projection of virtual relationships:** in the elaboration process information is converted into internally represented knowledge through relations between isolated and unlinked pieces of information	**Inability to project relationships:** failure to use this function leads to concretization of human activity, to poor elaboration and other cognitive deficiencies, such as a narrow mental field, episodic grasp of reality and poor internalisation of experience
7	**Need for logical evidence:** requires a need and the skills to apply logical analysis to the results of problem solving behaviour	**Lack of need of logical evidence:** there may be limited awareness of logical discrepancies between objects, events or relations
8	**Internalisation of behaviour:** internalisation or development of internalized mental images that are used in operations. To think in the abstract is a need to use representations such as signs, symbols and concepts to process data	**Lack of internalisation of behaviour:** will mean dependence on perceptive, concrete data rather than on abstract mental representations. Unable to solve problems mentally.
9	**Use of inferential-hypothetical thinking:** If ... then ... thinking which requires a readiness to seek alternatives by which to explain phenomena, generate a number of possible theories based on evidence that will be tested at a later stage	**Restricted use of inferential-hypothetical thinking:** unable to link events and consider alternatives or explore other possibilities and will not look for evidence to formulate a hypothesis, e.g. a student that misses a bus will not consider other ways to get home
10	**Strategies for hypothesis-testing:** devises a method for testing a hypothesis, e.g. research/experiment ... compare possible theories and identify the most appropriate hypothesis in a given situation.	**Impaired hypothesis-testing:** unable to select a method for hypothesis testing and relies on guessing. Cannot make suitable choices, because alternative hypotheses have not been tested successfully
11	**Planning behaviour:** function is related to internalisation and projection of virtual relationships. The learner sees the value of setting long term and short-term goals in order to project into the future and plan ahead.	**Lack of planning behaviour:** difficulty in distinguishing between goals and sub-goals and the means to achieve them. Also an inability to prioritize and organise the sequence of steps to planning in order to achieve the goal.
12	**Meaningful perception of reality:** linking information into a meaningful and comprehensive whole. An active role is taken in making an intentional and volitional effort.	**Episodic grasp of reality:** reflects a passive attitude, grasping the world episodically means that each object and event is experienced in isolation without linking it to previous or anticipated experiences

Source: Lomofsky & Young, 2010

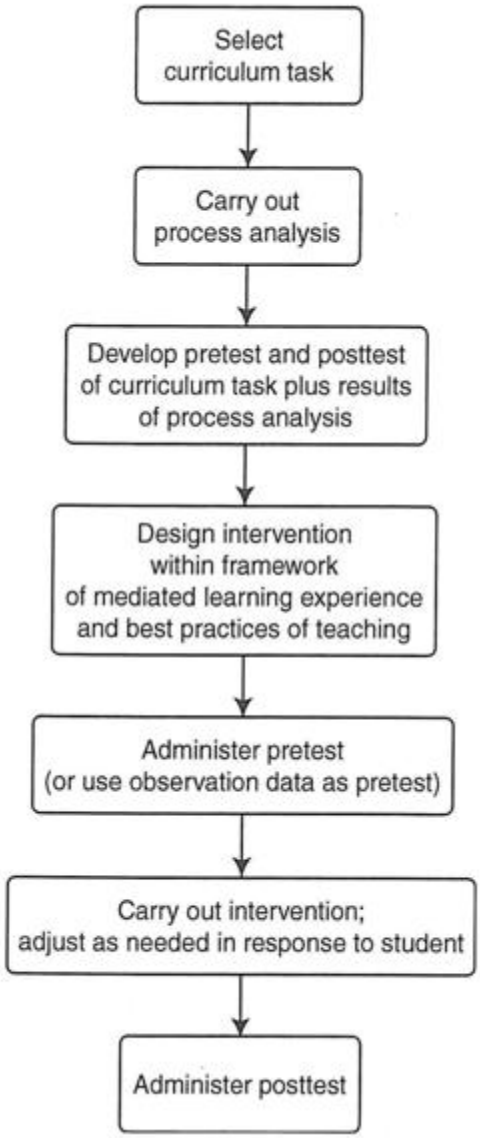
OUTPUT PHASE (OP):

OP	Cognitive Function	Cognitive Dysfunction
1	**Mature communication:** flexible, shows empathy, takes account of others' perspectives	**Egocentric communication:** insensitive to social cues and responds inappropriately, believes that his/her way is the best
2	**Participatory response:** will persevere despite failure, is confident when faced with problems	**Blocking out response:** gives up, lacks confidence when faced with new challenges.
3	**Worked through response:** works through a problem rationally and logically, answers	**Trial and Error response:** will randomly and impulsively guess at answers
4	**Adequate expressive verbal tools:** can verbalize a response that is understood	**Impaired expressive verbal tools:** has poor communication skills, uses gestures rather than words
5	**Precise and accurate data:** explains facts in precise and absolute terms, correctly	**Impaired data output:** gives attention to irrelevant, inappropriate data, responds incompletely
6	**Accurate visual transport:** can internalize and mentally manipulate visual detail correctly	**Impaired visual transport:** will reproduce given visual stimuli inaccurately
7	**Appropriate behaviour:** works carefully and systematically	**Impulsive, acting out behaviour:** incoming information, acts inappropriately, says the first thing that comes to mind

Source: Lomofsky & Young, 2010

APPENDIX E

Flowchart for Curriculum-Based Dynamic Assessment



Source: Lidz, 2003, p.117

APPENDIX F

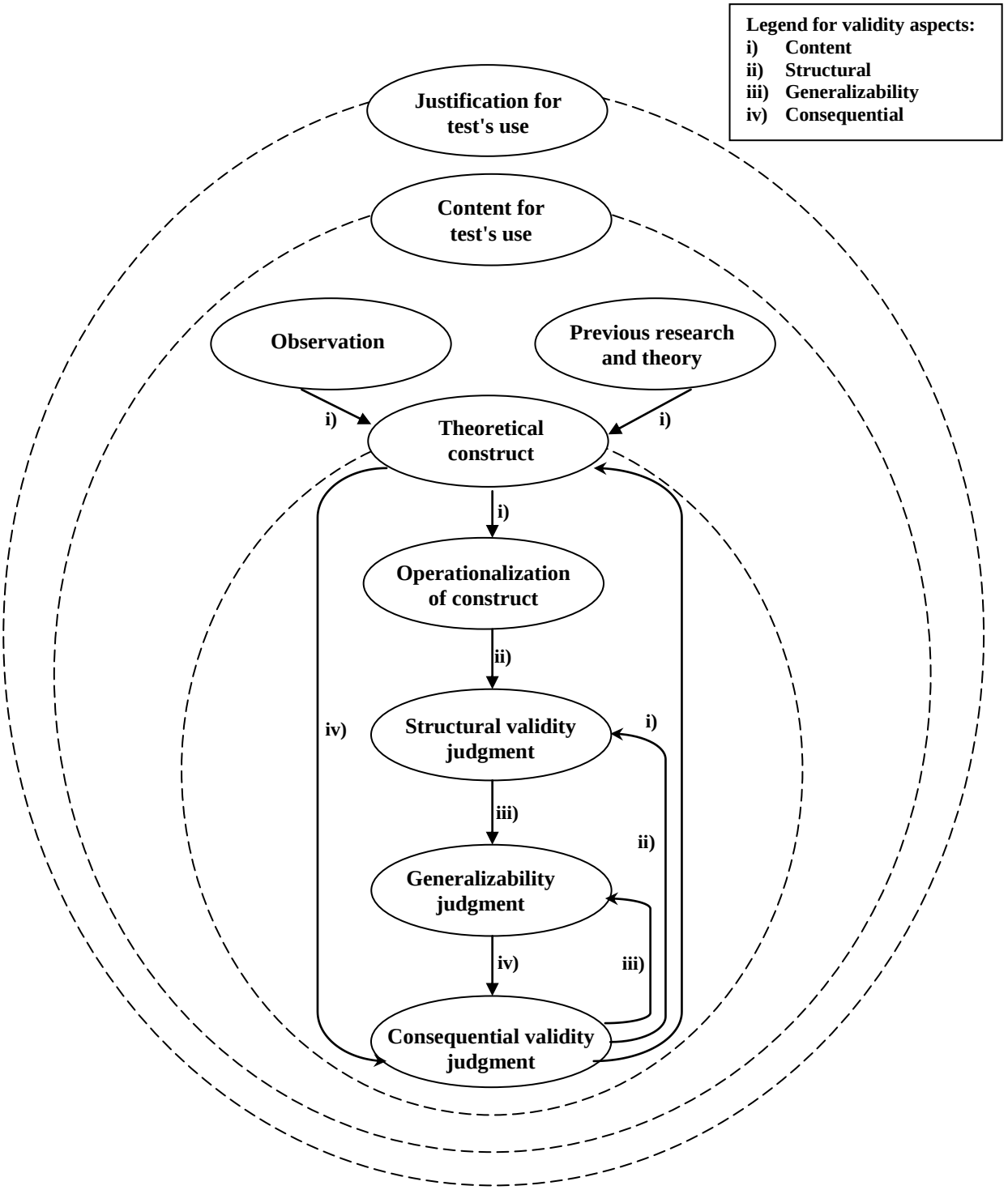
Some leading dynamic assessment approaches: their authors, target group, nature and functions					
Test/Approach (language of manual/guidance where English version is unavailable)	*Author(s) (nationality)*	*Population for whom the test is designed*	*Key processes examined*	*Type of assistance provided*	*Type of output and principal uses for the test*
Learning Potential Assessment Device (LPAD)	Feuerstein et al. (Isreal)	Mainly designed for low achieving children	15 test instruments (largely based upon existing static measures) covering a variety of cognitive operations in different domains	An unstandardised approach is utilized in which mediation is provided in whatever fashion the clinician feels is appropriate for maximizing the testee's performance	Seeks to ascertain the individual's modifiability. Identifies deficient cognitive functions and relates these to a 'cognitive map' that covers task parameters. The functions and the map, in combination, serve as a guide for intervention
Cognitive Modifiability Battery (CMB)	Tzuriel (Isreal)	Kindergarten to 4th grade	Various reasoning tasks, e.g. analogy, memory, seriation	Clinical version involves ongoing mediation that provides qualitative data. Measurement version involves a pretest, teach, posttest format that yields quantitative data. In both cases, assistance is unstandardised	Clinical version assesses cognitive skills and nonintellective factors. (This draws heavily upon Feuerstein's work). Measurement version yields gain scores that provide an indication of cognitive modifiability

Test/Approach (language of manual/guidance where English version is unavailable)	*Author(s) (nationality)*	*Population for whom the test is designed*	*Key processes examined*	*Type of assistance provided*	*Type of output and principal uses for the test*
Graduated Prompts Approach	Campione & Brown (USA)	Children with learning difficulties	Inductive reasoning problems involving abstract or curriculum-related tasks	Uses predetermined series of prompts or hints each time a child makes an error	Child's efficiency of learning is determined reference to the number of hints required and success on various transfer tasks.
Testing the Limits	Carlson & Wiedl (USA/ Germany)	Children and adults with a range of learning difficulties	Uses preexisting tests in dynamic format	Emphasis is placed on providing differing modes of test administration with a focus upon the use of verbalization and elaborated feedback	Geared to provide information about the most suitable mode of intervention for groups with differing learning difficulties
Application of Cognitive Functions Scale	Lidz (USA)	Children aged 3-5 and older children with learning difficulties	Cognitive processes and learning strategies associated with typical early childhood learning activities	Semi-standard system of administration yields both qualitative and quantitative information	Provides evidence of the child's development of cognitive functions related to typical demands of preschool curricula and the child's ability to profit from intervention
Leipzig Learning Test (LLT) (German)	Guthke & Beckmann (Germany)	Children aged 6-8 years (normed)	Inductive reasoning (classification/ concept formation)	Standardised set of prompts	Indicates a child's potential to profit from assistance. Seen as a useful tool in deciding upon special education
Adaptive Computer Assisted Learning Test Battery (ACIL) (German)	Guthke et al. Germany)	Children 5^{th}-9^{th} Grade (although can be used with older people)	Reasoning in the figural, numerical and verbal domains	Computer provides adaptive item sequence of hierarchical hints	Indicates potential to profit from assistance. Learning progress during the test can be matched to one of five typical 'types'

(In Elliot, 2003, Appendix, p.29-32)

APPENDIX G

The Validity of Dynamic Assessment: A conceptual framework



Note: Ellipses represent products. Arrows represent validation prospects labelled with the corresponding number of the aspect. Ellipses encompassing other ellipses and arrows represent contextual layers described by coincident ellipses.

Source: Carlson & Wiedl, 2000, p.707

APPENDIX H

STELLENBOSCH UNIVERSITY:

CONSENT TO PARTICIPATE IN RESEARCH

Educational Psychologists' Views on the Relevance of Dynamic Assessment for their Practice

You are asked to participate in a research study conducted by Mia Smit (B. Ed. Psych), from the Department of Educational Psychology at Stellenbosch University. The results will be contributed to Masters research thesis (mini-thesis). You were selected as a possible participant in this study because you meet the criteria:

- You are an educational psychologist registered at the Health Professions Council of South Africa
- You are working in the Western Cape
- You have had some form of training in dynamic assessment or you are familiar with/ knowledgeable about dynamic assessment

1. PURPOSE OF THE STUDY

The study aims to explore educational psychologists' views on the relevance of dynamic assessment for their practice (within the South African context).

2. PROCEDURES

If you volunteer to participate in this study, I would ask your permission to be interviewed. The interview will take about an hour and a half of your time. The interview will be at a time and place convenient for you. You will also be asked to share your views, experiences and insights, with regard to dynamic assessment.

3. CONFIDENTIALITY

All the information that I have gathered in my conversations with you in connection with this study will be kept strictly confidential. All interviews will be recorded using a digital voice recorder. The person transcribing the interviews and I will be the only persons who will have access to these files (I will let you know who it is as soon as I appoint him/her). The scribe will also sign a confidentiality agreement (see attached), which I will give you a copy of (which he/she has signed). Once the interviews have been transcribed, the recorded files will be deleted. No information will be disclosed in the public domain without your permission as required by law.
If abstracts from our interview are used in the research report, a pseudonym will be assigned for you, should you prefer that you identity not be made known. All the identifying information in the research report will be taken out or changed in order to protect your privacy and identity (should you prefer). The data of the study, in its original form, will however, be available to the supervisor of this study, for verification purposes.

4. PARTICIPATION AND WITHDRAWAL

Participation in this study is voluntary. Should you consent to be in this study, you have the right to withdraw during this study without consequences of any kind. You may also refuse to answer any questions that you do not want to answer and still remain in the study.

5. POTENTIAL RISKS AND BENEFITS TO PARTICIPANTS AND/OR TO SOCIETY

No potential risks as a result of participating in this study could be identified. I am willing to, should you be interested, inform you about resources and additional reading material on dynamic assessment.

6. PAYMENT FOR PARTICIPATION

Unfortunately there is no remuneration for participants in this study.

7. IDENTIFICATION OF INVESTIGATOR

If you have any questions or concerns about the research, please feel free to contact **Mia Smit** (principal investigator) at (083 376 8740); miasmit@sun.ac.za or Lynette Collair (supervisor) at (021 808 2304); lyncol@sun.ac.za.

8. RIGHTS OF RESEARCH PARTICIPANTS

You may withdraw your consent at any time and discontinue participation without penalty. You are not waiving any legal claims, rights or remedies because of your participation in this research study. If you have questions regarding your rights as a research participant, contact Ms M. Hunter-Husselman (021-808 4623) at the Unit for Research Development.

SIGNATURE OF RESEARCH SUBJECT OR LEGAL REPRESENTATIVE

The information above was described to me, the participant, by Mia Smit in Afrikaans/English. I was given the opportunity to ask questions and these questions were answered to my satisfaction.
I hereby consent voluntarily to participate in this study. I have been given a copy of this form.

_____

Name of Participant

_____ _____

Signature of Participant **Date**

SIGNATURE OF INVESTIGATOR

I declare that I explained the information given in this document to _____ [*name of the participant]. [H*e/she] was encouraged and given ample time to ask me any questions. This conversation was conducted in [*Afrikaans/English*] and [*no translator was used/this conversation was translated into* _____ by _____].

_____ _____ _____

Signature of Investigator **Date**

Agreement that was signed by the person transcribing the interviews:

STATEMENT OF CONFIDENTIALITY

Agreement for Maintaining Confidentiality
This form is intended to further ensure confidentiality of data obtained during the course of the study, *Educational Psychologists' views on the relevance of dynamic assessment for their practice.* All parties in this research will be asked to read the following statement and sign their names indicating that they agree to comply.
I hereby affirm that I will not reveal or in any manner disclose information obtained during the course of this study. I agree to discuss material directly related to this study **only** with the primary researcher, Mia Smit.
Name: _____
Signature: _____
Primary Researcher's Signature: _____
Supervisor's Signature: _____
Date: _____ Place: _____

APPENDIX I

Educational Psychologists' views on the relevance of Dynamic Assessment for their practice

INTERVIEW GUIDE

(According to Patton, 1987)

1. BACKGROUND / DEMOGRAPHIC QUESTIONS:

These questions concern the identifying characteristics of the person being interviewed. Answers to these questions help the researcher to locate the respondent in relation to other people (Patton, 1987, p.119).

1.1 NAME:

1.2 How old are you?

1.3 GENDER:

1.4 In which YEAR did you obtain your M.Ed. Psych Degree?

1.5 What other qualifications do you have? ***Probe:** Undergraduate degree(s)? Diplomas? Other?

1.6 How many years have you been working as an educational psychologist?

1.7 Where do you work? ***Probe:** Do you work in private practice, at a school, at the Western Cape Education Department or other place?

1.8 What is the nature of your current work?

a) *What was the nature of your past work?* ***Probe:** e.g. assessment / consultation/ education/ intervention/ etc?

1.9 Can you give brief details about the training you received in DA?

1.10 What are your areas of interest?

Note: Some of the questions that follow are from articles by **Deutsch & Reynolds (2000, p.316-317); Bosma & Resing (2008) and Haney & Evans (1999).**

2. EXPERIENCE/ BEHAVIOUR QUESTIONS DYNAMIC ASSESSMENT (DA) IN GENERAL:

Questions about what the respondent does or has done. These questions are aimed at eliciting descriptions of experiences, behaviours, actions and activities that would have been observable had the observer been present (Patton, 1987, p.115).

2.1 How would you describe the nature of your assessment practices? ***Probe:** Are you involved, e.g. with assessment in the school setting, private practice or other place?

2.2 Who are your clients? ***Probe:** children and/ or adolescents, students or other?

2.3 When do you do an assessment?

2.4 To what extent are you familiar with dynamic assessment as an assessment model?

2.5 How did you come to hear about DA?

2.6 Have you ever conducted DA yourself? ***Probe:** Why or why not?

2.7 Are you presently using DA in your job as an EP? If yes ...

a) *Why?*

b) *When?*

c) *How often?*

2.8 How would you describe the notion of *ongoing support*, in terms of you using DA? ***Probe:** Do you receive support from e.g. a supervisor, support group or other?

2.9 In general, are you satisfied with you present use of DA? If no ...

a) *Are there any circumstances preventing you from using DA as much as you would like to? If yes, would you mention what these are?*

2.10 Which assessment techniques have you found to be most helpful when working with clients from different cultures or who come from a disadvantaged socioeconomic backgrounds?

a) *How do you go about the assessment?*

3. OPINION/ BELIEF QUESTIONS DYNAMIC ASSESSMENT (DA) IN GENERAL:

Questions aimed at understanding the cognitive and interpretive processes of respondents. Answers to these questions tell us what respondents think about dynamic assessment. They tell us about respondents' goals, intentions, desires and values. Questions should explicitly ask about opinions, beliefs and considered judgments (Patton, 1987, p.118).

3.1 What do you think of dynamic assessment?

3.2 What is your opinion of dynamic assessment, in terms of its relevance for educational psychologists and their practice?

3.3 What would you like to see happen?

3.4 What are your views on the type of information that dynamic assessment yields?

***Probe:**

a) *Do you consider this information to be useful (or not) in guiding educational psychology* practices *and for planning interventions?*

b) *Is there* information *or anything that you do not find that useful?*

3.5 How do you think dynamic assessment is relevant within the South African context?

3.6 How or in what way do you think dynamic assessment has the potential to narrow/bridge the gap between assessment and intervention?

a) Why?

3.7 Would you consider incorporating dynamic assessment into your assessment practices and why?

(Link with discussion / conversation – did it have an impact on the participant's view?)

3.8 What do you see/ regard as the major **advantages** of DA? Can you mention 2 or 3?

3.9 What do you see/ regard as the major **disadvantages** of DA? Can you mention 2 or 3?

4. FEELING QUESTIONS DYNAMIC ASSESSMENT (DA) IN GENERAL:

Questions aimed at understanding the emotional responses/ reactions of respondents to their experiences and thoughts (Patton, 1987, p.118).

4.1 How do you feel about that?

Support and recognition responses: Source: Patton, 1987, p.127.

"It's really helpful to get such a clear statement of ... That is just the kind of thing we're trying to get at"

"We are about half-way through the interview now and I think a lot of really important things are coming out of what you're saying"

"I really appreciate your willingness to express your feelings about that. That's very helpful"

5. KNOWLEDGE QUESTIONS DYNAMIC ASSESSMENT (DA) IN GENERAL:

Questions aimed at finding out what factual information the respondent has. The assumption here is that certain things are considered to be known ... facts (Patton, 1987, p.119).

5.1 What do you know about DA?

5.2 Which theoretical basis do you use in your DA work?

6. REFLECTIVE (DEBRIEFING) ACTIVITY:

6.1 With the conversation that we have had today in mind, how would you explain, describe or summarise the essence of dynamic assessment? In other words, what is your understanding, in a nutshell, of DA?

6.2 How would you describe your experience of today?

Any additional comments you would like to make?

Thank you for your time.

APPENDIX J

Preliminary Data Analysis Process

A face sheet (Gbrich, 2007, p.25-30) with the following information was used in the preliminary analysis of the data:

1. Identifiers for the data set:
   - Who is this interview with? (use code to maintain anonymity)
   - When and where was it conducted and for how long?
   - What special circumstances or contextual issues might have impacted on the data?

2. Examination of what's going on in this text:
   - What are the major issues emerging?
   - What issues need to be followed up with the participant?

3. Summary of issues emerging

***An example of how the abovementioned was used in the present study is displayed on the next page.**

This face sheet was slightly adapted from Gbrich (2007) and reveals the preliminary data analysis process.

Face Sheet: Interview with P-8

Data Identifiers

Location: P-8's office at work
Date: 22 June 2009
Length of interview: 40 minutes
Special circumstances: None recorded

Major 'units of meaning' emerging

- Brief exposure to DA, no training – at university ... lecturer/supervisor for Ed. Psych interns & students
- product vs. process forms of assessment
- "knowledge of DA is limited ... exposed long time ago, difficult to remember what the issues were"
- How is dynamic assessment different from qualitative assessment component that is built into static assessments?
- "need something more stable than just my opinion ... can't make recommendations based on such tenuous facts ... very wishy, washy ... I need comparative results"
- DA instrument exposed to "primarily non-verbal – lacked verbal component"

Things to be followed up with participant

- Participant's age?
- Years that participant has been working as an educational psychologist?
- See questions in transcribed interview – ask to participant clarify

Summary of emerging 'units of meaning'

- Don't know what current status of DA is, or instruments that are available
- Comparison between static vs. dynamic assessment & the paradigms that 'govern' these two assessment approaches.
- Need for RODA – need comparative results
- Fuzziness of DA
- Concerns about subjective nature of DA
- Interested to find out more about RODA instruments

APPENDIX K

Advantages and disadvantages of dynamic assessment

Advantages and disadvantages of dynamic assessment **Codes applicable:** (ADV.DA); (DISADV.DA)

Participant Response	ADVANTAGES	DISADVANTAGES
P-1	'*I think it adds quality to a report, an assessment, the way of looking at a person ...'* *'It doesn't negate standardised scores, you know ... those are important, but builds on that ... and I think it also gives one the confidence that you are creating a more holistic picture of the person or situation, because I think dynamic assessment can also be done with organisations of course. You know, the organisation's ability to shift and move to change. So it's not only with people* **(Application of DA – various systems)** **'Another advantage also would be that it is not extra time really.** *For me, I don't think more time, because I don't have a set of – now I must do this and this ... It's a philosophy, it more a way of thinking, being ... a mindset ...'*	'**Time ...?** *It's not a time thing, some people might see it like that ... no, it's not time consuming, it depends how you use it ...'* '**Availability** *of ... oneself to be trained formally, but that's not a disadvantage for me ... No man, I think it is an important aspect, can't think of any now ...'*
P-2	**Non-threatening, humane, interactive, creates opportunities where children can experience success, push ZPDs to determine how far they can extend themselves, provides valuable qualitative info** *Well I think it could be a very reasonable form of assessment (um) ... and I think it is non-threatening. It's more humane, it's more interactive ... I think children experience success, because you work at the level where you know work at their level and you try to push what ... their zones of proximal development. You try you see how far they can extend themselves (um)……* *I think it gives you good information. I think it can be easily ... you can teach out of anything you find, if you need to, you can assess that way. It's flexible ... I think it measures the child against him/herself which is also useful)…* **Explanation of good information:** *I always find that your qualitative information in an assessment is some of your most useful information, because (um) … you get a score, but what approach did a child use? Like if you look at the blocks - was it holistic or was it more analytical? So how does their brain work? How do they process information? What was the output from what they processed? Were they anxious when you were working with them?Umm ... When you got to the number part in the assessment, did they immediately freeze up?* (Non-intellective factors) *(Umm) what questions did they ask you? Could they hear you properly? Did they ask again? Did they also feel sad? So I think it's all your observations.* **DA vs. Static** *And in qualitative assessment, such as dynamic assessment, you're engaged a lot more, so you can ask a lot more of those questions, whereas there is more of a formal structure in static assessment where you ask a question as it stated, you know and maybe the child didn't understand a word and therefore got it wrong. Whereas in a qualitative assessment, I mean dynamic assessment, you can ... it's far more open to interpreting, how you assess. So you can explain and use the word in a different way ... are they able to apply it?* *So I mean that is how I would use it, I don't know if it's right? So I think you get more substantial information, you know that you can do something about. So if it comes up it's vocabulary,, you can get more work on vocabulary ... or if they're talking ahead ... you can ask questions, find out ...'*	**Lack of norms & age equivalents** *I think while it's good that it's measures a child where they're at, it doesn't as far as ... I'm thinking Louis' doesn't necessary give you what is expected of a certain age ... certain milestones that are expected at that age and after that you know you look at intervention.* **Need paradigm shift for people to view it as a 'real' form of assessment** *I think it's (um) I think that you'll have to shift people's mindsets to see it as a 'real' form of assessment, because if you don't have scores and numbers and then you'll have relevant information. But I think that people are stuck in their ways. They want a score, they want an age ... they want an IQ score, they want a global score, which isn't necessarily ... I think we need to shift ... We need to look at what's 'relevant' to learning and teaching* **(Factors impact on extent to which is it incorporated into practice – Link with what P-1 said about DA being perceived as a frilly thing, and not being on the agenda)**

Participant Response	ADVANTAGES	DISADVANTAGES
P-3	*I think the one is ... obviously the child must feel empowered, because they're walking away not just being assessed, but also having learned ... and that is empowering ... It's positive reinforcement for the child and again, I keep saying it, you're teaching as well as assessing, so yah ... those two.*	*I think, with a lack of knowledge, I think my feeling is ... the time factor. I suppose you would rather limit ... or change ... so your practice would just have a different approach ... say, if you have fewer people for longer periods*
P-4	**EP noted that it also provides useful info about non-intellective factors that impact on static test scores, e.g. performance anxiety ... which in turn informs intervention and recommendations to parents and teachers ... She noted that parents also appreciate and value the type of information DA yields, as well as the manner in which the process (and assessment) and the results are communicated to them ... dynamic assessment doesn't use 'psychology lingo' ... Also noted that through mediation, she has seen a remarkable difference in individual's performance on static assessment measures.** *'It can instil a feeling of hope and mastery within the child/ person, which in turn encourages independent learning ... and allows the child/person to acquire new skills and new 'was of looking at a problem or something' ...* *'It changes the way we as therapists look at and perceive our clients ... not as someone who is not capable of something, but finding ways to unlock the potential our clients ...'*	*'People who use it without proper training – there is the risk that they might not implement or use it correctly ... which in turn may affect the quality of the intervention and support offered ... and the conclusions drawn, because it seems to be much more of a subjective, than an objective thing..So at certain times, it is useful to have a score, because, depending on the mediator's knowledge, skills and experience -what may be 'remediable' for one person, may not be 'remediable' for another ...'*
P-5	**DA doesn't place a ceiling on a person's ability with an IQ score – provides opportunities for someone to demonstrate their ability to learn and this in turn instil a feeling of accomplishment and hope.** *Ek dink net ons moet versigtig wees om 'n mens te kwantifiseer tot 'n syfer alleen en om nie aan te neem dat 'n mens se potensiaal eenvoudig 'n plafon moet bereik het en dat 'n mens ruimte moet laat met dinamiese assessering vir ... umm, dat daai plafon kan skuif wil ek amper sê. So as jy daardie sensitiwiteit het, dan blok ons nie die mens in op 'n IK van 'n 100 of 120 nie, maar jy sê wel hy mag dalk nou met hierdie toets om baie (emphasis) redes toets by 'n 90, maar ek het gesien hierdie persoon is 'teachable' ... ... en dat dit vir jou amper hoop gee vir wat kán (emphasis) volg ... want daar is net te veel stories van mense wat op 'n laer telling getoets het in 'n aanleg en 'n intelligensie toets, maar wat op die ou einde eintlik soveel vermoëns het, as dit reg benader word.* **Look at which intervention strategies worked during the assessment and then also mention that in the report and with feedback to parents and teachers** *Ek dink as die assesseerder 'n goeie begrip het vir die ... vir wat die kind behoort te kan doen van daardie ouderdom, as ons nou van kinders spesifiek praat ... en wat in die skool van daardie kind verwag word ... en in die assesserings proses ... ek dink nou maar ook net ... gebruik die assesseerder toetsingstegnieke? Toets idees en kyk hoe effektief dit is ... en dit wat effektief wel gewerk het kan in die verslag deurgegee word om te kyk dat dit oorgedra word in die klaskamer* **Unlocks potential, lifts intellectual ceilings, broaden intellectual horizons, doesn't label or box people in; Gives information on how a person can be supported – more specific interventions that can be tailored to the individual.** *Kyk dit ontsluit potensiaal. Ek dink dit ... vir mense wat vir lank ... kinders wat kón 'ge-label' gewees het as iemand met 'n gemiddelde potensiaal of 'n ondergemiddelde potensiaal, kan deur dinamiese assessering die geleentheid kry om hulle grense te verbreed ... want omdat ons hulle nie in 'n boksie sit nie, ons hou die grense oop, ons sê: "die deksel kan gelig word" – So dit gee geleenthede vir mense indien hul wel ... indien dit moontlik is.Vir my is dit die groot, groot voordeel - ons boks nie iemand in nie ...* *En dan gee dit vir ons inligting, as dit reg gedoen kan word. Inligting van 'hoe' kan daai persoon geondersteun word. Dit is nie net – "hy moet geondersteun word ..." want dit gee vir jou meer spesifieke inligting, en op die ou end werk ... wat met hom gaan werk ... inligting oor hoe jy met hom gaan werk ... Maar dit is moeilik ...*	**Need a lot of expertise and experience in order to use it in the manner it is intended to be used** *Jy moet baie goed opgelei wees om daai inligting reg (emphasis) te kan deurgee ... en ons moet nie daaroor te 'min verwag of droom' en dink dat ons dit sommer maar net met basiese opleiding gaan doen nie ... Dis 'n spesialis area.* **If you are not properly trained, can make claims without concrete/substantial evidence ...** *Ek dink die nadeel is, as jy nie genoegsaam opgelei is nie kan jy 'n skoot in die donker skiet en dat jy mis skiet! Dat jy goed raai, wat jy nie eens substasiële bewyse voor het nie ... En dat jy eintlik die kind op daai manier kan benadeel in plaas van bevoordeel. Jy moet baie, baie versigtig werk met daai inligting wat jy gaan deurgee aan die persoon wat daai kind gaan ondersteun dat jy nie valse hoop skep nie want, en jy moet ook nie die mens magteloos laat voel nie ... deur verkeerde inligting deur te gee nie.* *As ek dink aan 'n onderwyser wat 'n verslag kry wat sê dat die volgende en volgende tegnieke werk en dan is daar niks wat werk nie ... Sjoe, dit gaan hom geweldig magteloos laat voel ... en vir daai kind en daai ouers ... dit kan nogals lei tot 'n traumatiese ervaring. Jy moet baie seker wees van dit wat jy deurgee.*

Participant Response	ADVANTAGES	DISADVANTAGES
P-6	*This whole idea of training and retesting* **(can be applied at various systemic levels, not only with learners, but also with teachers).** *I brought a lot of that into our school, where I tell the teachers and I help them to teach according to the test that they're giving. So teach in the same way that you're going test the children, because that way you'll get the best out of them. So the principle, that has to imbue not only a test situation like for me, but it should be part of what the school does as well ... and I think the greatest advantage is seeing the fluidity, seeing the change that can take place when you do the training and the retest. So it's very ... always the optimistic alternative, always.* **DA is culture-free** *Well I think it's hugely relevant, because it's culture-free. So I think that makes it relevant worldwide.*	**Lack of expertise and experience - practitioner** *I think probably one of the major disadvantages would be ... probably with the person, the practitioner who doesn't know enough ... or who doesn't understand that you can't use a little bit of this and a little bit of that. You have to be a purist in what you do.* *So I think a disadvantage would be somebody who is under-qualified and under-experienced ... ... and if they don't report things ... if they're able to report in an objective, professional way so it doesn't become like you know, what's the word now? ... A guru, but not grounded in anything ...* **Further noted that a lot of expertise is needed to do DA 'properly' and that there are huge risks, if one is not adequately trained in it –** '*I think there are huge risks. I think there are also, you have to be exceptionally meticulous in the way you report this as well. You know you can't make sweeping statements. It has to be based on, not just you know ... if they did one thing fabulously, so they're bright and intelligent. You need to ... tame your own enthusiasm with your education and experience'.*
P-7	**Not linear, interactive, awareness of influence of the context on results, sense of mastery and positivity ... move away from medical paradigm, intervention is included in the assessment, culturally fair ...** *I think the fact that it's sort of dynamic and not linear, that's an advantage.* *I think it's more informative and it takes cognisance of the children or the learner's context.* *Dynamic assessment also gives an immediate feeling of progress ... and in a sense positivity in the child who is being assessed and it's less clinical in a way as well, it's more interactive and that's and ... it is better. It's less medical, it's more social it's more interactive and as I say, the great benefit of it is that it, ummm ... it kind of includes the intervention in the assessment; it sheds a different light on groups of children who normally don't perform well on the standardised tests where there is no interaction - you just give it and it is clinical and that's it.*	**Has a lot of potential in itself, but needs momentum ...** *The major disadvantage as it stands ... I feel that it needs kind of momentum ... You know it's got lot of potential in itself, but it needs momentum ...* **Not economical, lot of expertise needed in order to use it effectively** *Another disadvantage ... it's not economical. It's one-to-one and you got to really 'un pit' (can't make out on the audio recording) people's cognition if you in order to implement something that is effective. You got to understand somebody's thinking.* *Um ... It's time consuming and it's ... you've got to do it on a one-on-one and ... you also have to understand ... I think generic principles or um ... thinking and cognition – you've got to understand the ways in which people think to be able to use it more effectively ...*
P-8	**Compliments static assessment** Well I think the most important thing is that it alerted the people who were unaware of the need for a qualitative component to traditional assessment. That they had (*emphasis*) to pay attention to qualitative assessment ... Because it is much easier just to sit there and write down times and scores ... But to actually watch the child perform, to look into their eyes, to try and understand their feelings, how ... *well are they more confident on this one, less confident on that one? What is creating the difficulty here? Is it a perseverance problem? Is there a confidence problem? Is there an oppositional issue? What's going on with this child?* I mean at the end of the day what we have to do, is providing information that's going to facilitate development, improve knowledge and understanding - in the child, and in the adults, teachers and parents so that that child's development can be supported and enhanced. Qualitative observation is a essential ... . and I'm afraid to say the traditional psychometric assessments were often done by people that weren't properly trained. It didn't often stress that qualitative aspect enough.	**Time it takes to administer it, and the high level of expertise needed to do so ... Lack of training results in irresponsible and unethical practice** *Time and the skill required which ... I'm talking from the history. My impression at the time was: "People who are going to use this assessment need to be really, really well trained. They need to have a fundamental understanding of psychometry. They need to know how to assess in a scientifically valid and ethical manner" ... and once you've got that, then you certainly can go do dynamic assessment, but to try and short-circuit the development of assessors, I think would be irresponsible.*

APPENDIX L

Sections of a transcribed interview to review the process of data analysis in this study

CODES	INTERVIEW: Units of meaning	COMMENTS
	First of all, can you give me brief details about your training in dynamic assessment?	
Train. DA **Expos.DA**	We had no training in dynamic assessment in our course ... or should I say we had very little ... we were exposed very briefly to it.	Very little training Briefly exposed
	In which course was that?	
Train.DA, Expos.DA	In the Masters programme ... in assessment. Like we had ... look I was at ***(*name of tertiary institution taken out to protect participant's identity*), so I was, I think I was quite fortunate to do a course ... So we had clinical people, counselling people and education people, all in one room, in one course, twelve of us ... and also they wanted to mix it a bit, so they did a lot of clinical diagnostic stuff, DSM and so forth ... but also they brought in education people to do the assessments and the clinical people benefitted from that and in that assessment course. It wasn't assessment ... more, hmhm ... psychometrics you know the psychometrics stuff, so dynamic assessment was mentioned there, but very briefly.	At university, presented as part of module in course
Train: Medic.Par,		Medical paradigm, training
Train: Static.Ass.Par		More training in static assessment than DA,
Expos. DA		briefly mentioned
Expos.DA Know.DA(Prac)	I encountered dynamic assessment more within the districts, in my district work and (umm..) with ***(*DA trainer & practitioner*)'s work ... Also, ***(*DA trainer & practitioner*) speaking to learning support people ... not to us as psychologists, ... but to, and also ... picking it up ... um, through my own reading and through my	More exposed in practice, work context & interaction with SLES colleagues Knows DA trainer who trained teachers
Expos.DA		Further exposed through

Expos.DA, **Train. DA:** Self.Study Expos.DA, **Train. DA:** Research Know.DA(Theor) Degree.Expos Know.DA(Theor) Fact.Incor.DA (Prac): System/context Extent.DA.Incor.Prac Fact.Incor.DA (Prac): Time Proff.Belief.Sys. Fact.Incor.DA (Prac): System/context EP.Pers.View: Expos.DA(aware) #EP.Use.DA.Prac	own interest ... and then when I did my second masters, for registration I did a course called ... I did my thesis on ****(*title taken out to protect participant's identity*) ... and the underlying theoretical frame for that, for my thesis was Vygotsky. And a bit of Piaget and ... so ... I was again exposed to ... you know to ... not a lot of dynamic assessment, but because Vygotsky, is very central, in the development of dynamic assessment ... so there was my exposure again. So it was more through reading and more through my own ... um ... sense of how we were trained, and ... The expectation, in organisations like this ... What's the expectation for assessments? For psycho-educational assessments it is definitely not about dynamic assessment, you know, so I've brought that in more ... not as a practice ... Because remember, you're trying to get through your work ... But this is philosophy for me that I've always held. You see more than a ... because ... it is not a requirement. It has run parallel in terms of ... what I think of assessment and what kind (um) of psychologist I want to be. So it's more about than ... than the requirements of ... meeting the requirements a job, you see. **Okay ... I see ...** Dynamic assessment is not actually needed too much ... If you should go to psychologists in the district and you say: "Do you use dynamic assessment in your psychometrics ... in your practice?" I am guessing now ... most of them would say: "no". Umm ... some would say: "yes, I have heard of it", but I think ... like myself, there would be a few like me ... **Okay, so just to summarise and clarify ... Most of the training that you've had in dynamic assessment was only brief in your course ... but then later, through your own reading, interest and then also through ***** ***(*DA trainer & practitioner*)'s **courses ... or ...?** I didn't attend any of his courses, but I	self study and further research Research Knowledge of theorists central - development of DA Repetition Demands of system in which EP works affect extent→ incorporate it into practice EP uses philosophy of DA Requirements of job – time factors no/ not enough time for DA? DA forms part of EP's professional belief system Personal view: According to EP, not many EPs at district offices are making use of DA in their practice ... because there's not a demand for it, some may be aware of it ...

Expos.DA, **Train. DA:** Read., Interact.SLES	have been reading ... it has been through my own reading ... and through my exposure ... my interaction with SLES, with the learning support people who were involved with ***(*DA trainer & practitioner*), you see ...	Training & exposure through own reading & interaction with learning support colleagues
Know.DA (Expert Prac/Tr/) **Train. DA** Train. Opp. CPD Know.DA (Expert Prac/Tr/) Expos.DA, **Train. DA:** Know.DA (Theo) Expos (type)	**Oh, I see ... okay** ... It is not directly linked to him ... that I attended *** (*DA trainer & practitioner*) course or a *** (*DA trainer & practitioner*) course. In fact I, on a few occasions I've actually approached *** (*DA trainer & practitioner*) informally and said: "You need to come and run it ..." ... because she is also ... I think she is very clued up with dynamic assessment. Umm, I also remember in our course we had a thing on neuropsychology and this person also spoke about Feuerstein, but very briefly ... and it wasn't something like: " O my gosh, I must write a text on this!" So there has, kind of been, some gap there ...	DA expert Another field where DA is applicable? Gap in knowledge of DA?
Nature. Curr.Ass.Prac Fact.Incor.DA (Prac): System/context Demands.Sys. Nat/Ident.DA	**And how would you describe the nature of your assessment practices now ... the type of assessment you are involved in?** It's very much in terms of the requirements. What is required for learners ... children to get into special school, for example. I try to meet those requirements the best I can so I would ... put in something about this child's capacity to learn ... but that wouldn't be a requirement. People are not interested in that ... It's like hard facts: "What's the IQ score? What did you do on the subtests?" and (um) so even ... this is the sad part of it ... even if you come with all your "frills and stuff" ... I mean, dynamic assessment would be seen as ... more like a frilly thing on the side. So, what is required is: "Did you do the full SSAIS-R?" You know, even if you even just did that, that is a basic requirement. All the other things like, the projective techniques and that frilly ... you know ... So that's the thing. So we not, I don't think ... I think we talk in	Still use static assessment, as that is what is required by system/context in which EP works ... incorporates DA although not required. If not based on 'hard facts', seen as 'frilly' Construct fuzziness?

Ass.Par./Shift	terms of the language that we speak. We speaking stuff like, "we need to consider multiple intelligences, Howard Gardner's stuff" ... To consider things like, "Can the child learn or how is the child presenting to you?" You know, the dynamic assessment of pre-tests, intervention and post test stuff. You might be talking that, but when it comes to ... hey, we need to refer this child ... "ha-ah (*meaning no*),	Paradigm shift in terms of professionals' speaking, but not in terms of their actions?
Know.DA (Proced.) Comf.zone? Speak.vs.Action	frilly, frilly ... get down to the thing. **Mmm, okay. So now I would like to ask you a little bit more about ... now we're getting to what the research is actually about ... and I would just like to thank you for the insights you have shared so far. It has been very useful and I think a lot of important things are coming out ... what is your view on the relevance of dynamic assessment for your practice?** (*Participant knodding head*) Yes, crucial, crucial ... very relevant ...	Difficult to leave comfort zone?
View.Rel.DA (VR)	**Can you give a reason ... why would you say it's relevant?** It's very relevant (um) ... Even, even ... I think even if you use it in the way that I'm using it. I think that's the starting point, you know, to do it. So for me, I have to ... it's very relevant to give me a big picture ... the bigger picture of the child. Otherwise, you only have raw scores that's standardised, normed ... "What does that mean? ... what does that norm mean? ..." You see, what does it mean? Because we have different norm tables (*emphasis*). It means ... it means nothing (um) ... I've got the SSAIS-R and I've got different norms ... So for me you can't come up with an analysis of a ... it's a crucial ... Let me put it this way - it's a crucial aspect (*emphasis*), of the way that you see a child in terms of the education environment ... crucial ... Uhhh and I think a lot of the psychologists might be ... they might not be talking the way you do, with your theoretical background and your training in it, but they might have a sense of it in a different way. Like me	Consider DA as crucial, and very relevant to practice Repetition, guideline for incorporating DA→ practice (can use it without training in DA instruments, i.e. philosophy) Gives more holistic picture, yields useful info? Static score on its own not meaningful? DA takes context into account? EPs may be using DA – but not refer to it as such?
Guide.Incor.Prac. → Start.Point		
Reas.DA.Rel.		
Reas.DA.Rel.		

Train.DA (None) = Expos.DA Extent.Incor.Prac	also, I don't have the, the ... I haven't been 'trained' in it, but I've read about it and the philosophy ... and the principles, are those that I follow.	Different ways of implementing/using DA Although DA was part of coursework during Masters, EP considered it as exposure, not training Uses philosophy & principles in practice

KEY:

COLOUR	UNIT OF MEANING	CODES
Yellow	Exposure to dynamic assessment	Expos.DA
Orange	Training in dynamic assessment	Train.DA
Turquoise	Knowledge of dynamic assessment	Know.DA
Pink	Factors that affect incorporation of dynamic assessment into practice	Fact.Incor.DA (Prac)
Purple	Extent to which DA is incorporated into practice	Extent. DA. Incor.Prac
Green	Views on dynamic assessment (on its relevance & in general)	EP.Views.DA

(} = where codes/units of meaning overlap)

APPENDIX M

An illustration of how data with a similar code were organised under the same code to review the process of data analysis used in this study

DATA (*units of meaning*)	CODES
Initial exposure: *exposed very briefly to it, in Masters programme ... in assessment,* Further exposure: *encountered dynamic assessment more in my district work, picking it up through my own reading and interest, did thesis – again exposed ... not a lot of dynamic assessment, interaction with SLES, learning support people* In general, awareness of other EPs: *If you should go to psychologists in the district and you say: "Do you use dynamic assessment in your practice?" I am guessing now ... most of them would say: "no". Some would say: "yes, I have heard of it", but I think ... like myself, there would be **a few** like me ...*	**Expos.DA**
Initial training: *no training in dynamic assessment, very little, in Masters programme ... in assessment* Further training: *picking it up through my own reading and interest ,did thesis*	**Train.DA**
How obtained: *More through own reading and own sense of how we were trained,* Knowledge (Theoretical): *Vygotsky is very central in the development of dynamic assessment, a little of Piaget, Feuerstein ... **some gap there ...*** Knowledge (Expert/Tr/Prac): Names DA experts (practitioners & trainers) in Cape Town Knowledge of procedure/model: *pretest, intervention, post test*	**Know.DA**
Training: *Course - did a lot of clinical diagnostic stuff, more psychometrics, dynamic assessment was mentioned there, but very briefly.* Demands of System/context in which EP works: *the expectation in organisations like this for psycho-educational assessments is not about dynamic assessment, dynamic assessment is not actually needed too much, People are not interested in that ... It's like hard facts: "What's the IQ score?* Time (availability of self): *remember you're trying to get through your work ...* Nature of DA: *dynamic assessment would be seen as ... more like a frilly thing on the side* Leaving comfort zone & need to practice what is preached: *We speaking stuff like, "we need to consider multiple intelligences, Howard Gardner's stuff" ... To consider things like, "Can the child learn or how is the child presenting to you?" You know, the dynamic assessment of pre-tests, intervention and post test stuff. You might be talking that, but when it comes to ... hey, we need to refer this child ... "ha-ah (meaning no), frilly, frilly ... get down to the thing.* Number of professionals practicing DA: *I think ... like myself, there would be **a few** like me.* Professional belief system: *this is a philosophy that I have always held ... it runs parallel in terms of what I think of assessments and the type of psychologist that I want to be ...*	**Fact. Incor. DA. (Prac.)**
Extent to which it is incorporated into practice: *I think a lot of the psychologists might be ... they might not be talking the way you do, with your theoretical background and your training in it, but they **might have a sense of it in a different way**. Like me also, I don't have the, the ... I haven't been 'trained' in it, but I've read about it and the **philosophy ... and the principles, are those that I follow**.*	**Extent. DA. Incor. (Prac.)**

DATA (*units of meaning*)	CODES
For practice: *Crucial, very relevant* Reasons: *give me the* ***bigger picture of the child****. Otherwise, you only have raw scores that's standardised, normed ... What does that norm mean?* *Crucial aspect (emphasis), of the way that you see a child in terms of the education environment*	**EP. Views. DA**

This is process was repeated with each transcribed interview. In the end, data from all twelve transcribed interviews with similar codes were organised under the same code.

APPENDIX N

An illustration of how related codes were categorised into themes

Categories (from codes) + units of meaning	Themes
Expos.DA Expos.DA(1st) **:** University, Instrumental Enrichment training, Feuerstein Institute Expos.DA(Frthr): interest lead to further reading & research (self study), interaction with SLES colleagues (district work), info sessions DA practitioner Type/Degree: Either very little or very extensive, but always brief **Train.DA** Types**:** superficial → intensive & extensive, but always brief Train.DA(1st): University (courses, workshops, lectures, talks, some practical work, Training in specific tools / instruments (by DA practitioners) Train.DA(Frthr): research for thesis (Vygotsky and/or Feuerstein); Self study	**EPs' exposure to and training in DA**
Def.DA: Know.DA (Theo); Know.DA (Prac), Know. (Proced./Appr.), Know.DA. Nat., Know.DA (goal), Know.RODA, Know.CODA Procedures, approaches and orientations (awareness of RODA & CODA), Nature – principles and strategies, Aim/ Goal **Know.DA:** Know.DA (Theo); Know.DA (Prac), Know.DA. (Applic.), Know. (Proced./Appr.), Know.DA. (Nat). ,Know.DA (Princ/Philos.) Know.DA (goal), Know.RODA, Know.CODA Major theorists , tools & instruments , applications of dynamic assessment, principles and philosophy **Underst.DA**: Underst.DA (def.orient); Underst.DA (pers.); Underst.DA (constr.fzz) Definition-oriented understandings, Personalized, integrated understandings, Confusion: construct fuzziness of DA	**EPs' knowledge and understanding of DA**
EP.Views.Rel.DA (Prac.); EP.Views.Pot.DA (Prac.) Reas.DA.Rel (adv. info.), Reas.DA.Rel (adv. nat.), Reas.DA.Rel (adv. interv.), Reas.DA.Rel (adv. princ./philos.) Yes, very relevant; has a lot of potential Reas.DA.Rel (disadv.time.), Reas.DA.Rel (disadv. nat:labour), Reas.DA.Rel (disadv. nat:subjectv.), Reas.DA.Rel (disadv.cost), Reas.DA.Rel (lim.train), Reas.DA.Rel (n.field.interst.) Unsure; has potential ... not sure how it can be realized	**EPs' views on the relevance & potential of DA for practice**

Categories (from codes) + units of meaning	Themes
EP.Views.Rel.DA (SA); EP.Views.Pot.DA (SA) →has a lot of potential Reas.DA.Rel.SA (adv. info.), Reas.DA.Rel.SA (adv. nat.), Reas.DA.Rel.SA (adv. interv.), Reas.DA.Rel.SA (adv. princ./philos.); Reas.DA.Rel.SA (Applic.), Reas.DA.Rel.SA (adv.cult.free/friend), DA.Rel.SA (adv.cost.eff/CBDA) Yes, very relevant; focusing on applications of dynamic assessment Relevant, but underrated and underused Fact.Incor.DA.Prac. (context:dem.sys, assess.par.; train: insuff.) Relevant, but not realistic & practical Fact.Incor.DA.Prac.(cost, labour int., time)	**EPs' views on the relevance & potential of DA in South African context**
ADV.DA: ADV.DA (Nat.); ADV.DA (Info.); ADV.DA (Interv.); ADV.DA (vs. static); ADV.DA (Applic.) Nature, type of information that it yields, intervention, dynamic assessment vs. static assessment, applications of dynamic assessment **DISADV.DA** DISADV.DA (Nat.); DISADV.DA (constr.fzz.); DISADV.DA (labour.int.); DISADV.DA (subjectv.); DISADV.DA (cost); DISADV.DA (time:self/admin); DISADV.DA (danger.insuff.train); DISADV.DA (context: static.ass.par); DISADV.DA (context:medi/def.par.); DISADV.DA (context:dem.sys.); DISADV.DA (context:access.train) Nature of dynamic assessment, lack of training can result in irresponsible and unethical practice, contextual factors that affect the extent to which it is incorporated into practice	**Advantages and disadvantages of DA**
Fact.Incor.DA. Prac.: Fact.Incor.DA.Prac (Nat); Fact.Incor.DA.Prac (Train); Fact.Incor.DA.Prac (Context); Fact.Incor.DA.Prac (field.interst); **1. Nature of DA:** Fact.Incor.DA.Prac (Nat:cost); Fact.Incor.DA.Prac (Nat:time); Fact.Incor.DA.Prac (Nat:RODAvs.CODA); Fact.Incor.DA.Prac (Nat:Valid.); Fact.Incor.DA.Prac (Nat:constr.fzz); Fact.Incor.DA.Prac (Nat:subjectv.) Costly: instruments/tools are expensive, time-intensive: constraints & availability of self, labour intensiveness, high level of expertise, RODA vs. CODA debate, validity issues, construct fuzziness, subjective nature **2. Training** Fact.Incor.DA.Prac (Train:aware); Fact.Incor.DA.Prac (Train:access); Fact.Incor.DA.Prac (Train:availab.); Fact.Incor.DA.Prac (Train:exclus.); Fact.Incor.DA.Prac (Train:market/prom); Fact.Incor.DA.Prac (Train:#experts, trainers); Fact.Incor.DA.Prac (Train: #research), Fact.Incor.DA.Prac (Train:univ.); Fact.Incor.DA.Prac (Train:suggest.); Fact.Incor.DA.Prac (Train:cost) Awareness, access and availability, exclusivity: Monopoly or elitism? vs. promotion, financial implications, amount of research & number of qualified trainers at tertiary institutions, suggestions for future training **3.Contextual Factors** Fact.Incor.DA.Prac (Context:Philos.par); Fact.Incor.DA.Prac (Context:Pract.dem.sys); Fact.Incor.DA.Prac (Context:Pers.comf.zon) Philosophical: 'The battle of the paradigms'; Practical: Demands and requirements of the system; Personal: Leaving the 'comfort-zone' **4. Interest Fields** Fact.Incor.DA.Prac (field.interst:pers.); Fact.Incor.DA.Prac (field.interst.proffes.) Belief system: personal & professional	**Factors that affect the extent to which DA is incorporated into practice**